

# THE BRICKBUILDER

VOLUME XVII

NOVEMBER 1908

NUMBER II

PUBLISHED MONTHLY BY ROGERS & MANSON

85 Water Street

Boston, Massachusetts

Entered at the Boston, Mass., Post Office as Second-Class Mail Matter, March 12, 1892.

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Subscription price, mailed flat to subscribers in the United States, Insular Possessions and Cuba	\$5.00 per year
Single numbers	50 cents
Subscription price, mailed flat to subscribers in Canada	\$5.50 per year
To Foreign Countries in the Postal Union	\$6.00 per year

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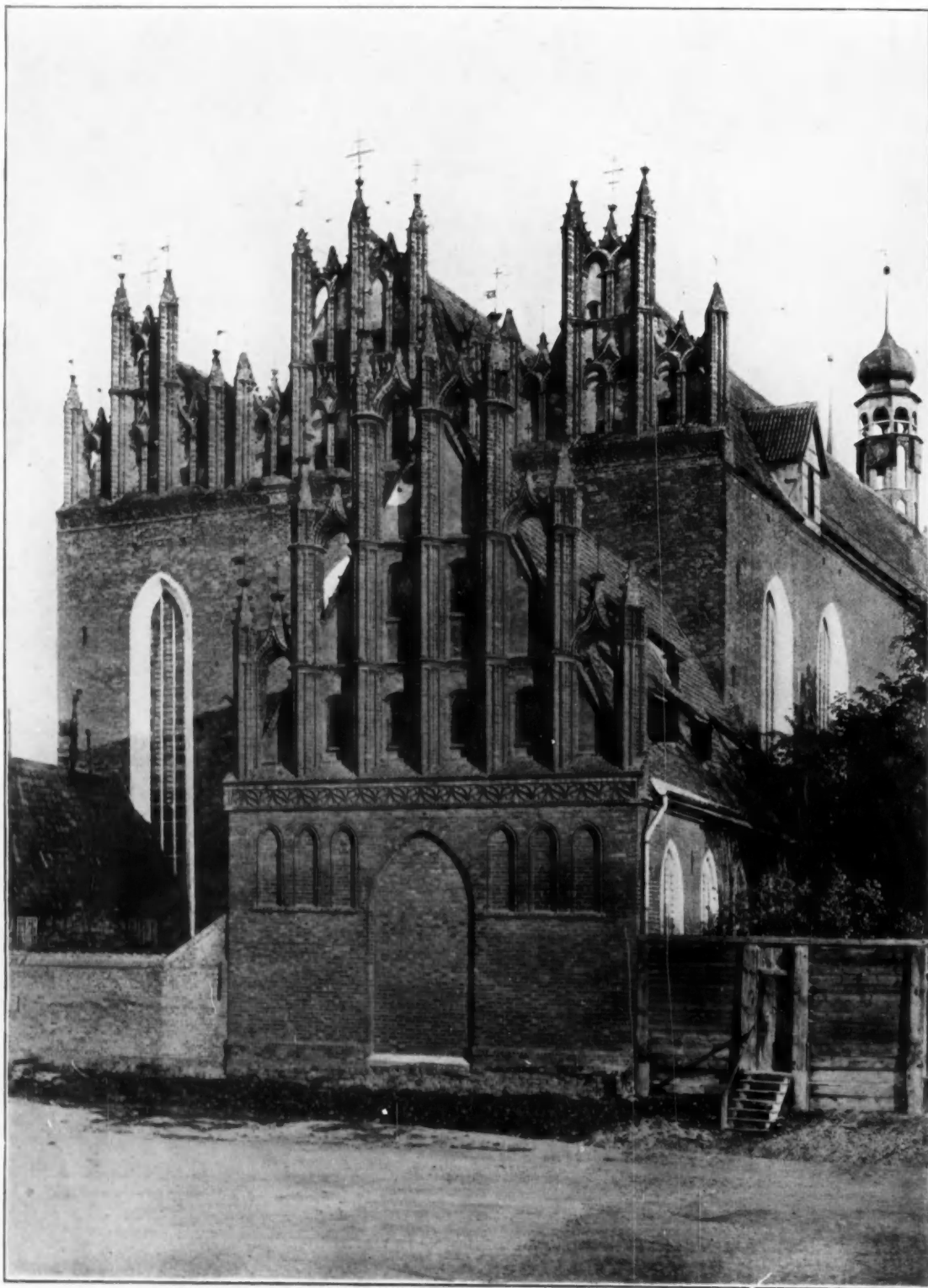
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### LETTERPRESS

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THE FRANCISCAN MONASTERY OF THE TRINITY, DANTSIC, GERMANY.

# THE BRICKBUILDER

VOL. 17 NO. 11

DEVOTED TO THE INTERESTS OF ARCHITECTURE IN MATERIALS OF CLAY

NOVEMBER 1908

## Courthouse Planning.

BY THOMAS M. KELLOGG.

IN every country the degree of progress is measured to a great extent by its method of administering justice. The existence and maintenance of law courts, and the gradual growth and increase in their scope and power, has been one of the strong and undeniable indications of the advance of civilization, tending towards an increase of personal liberty and an assurance of the rights of individuals to hold and enjoy the possession of property, and to maintain their civil rights under the protection of established laws.

The rapid growth of our own country and its marvelous development have been largely due to its ability to adopt and carry out from its infancy a system of wise and effective self government. In the pioneer days, when new settlements were being continuously formed, an element of lawlessness usually existed which threatened the safety and happiness of each community to as great an extent perhaps as the encroachments and depredations of the Indians. To overcome this tendency it was necessary to deal summarily with each offender, and justice was administered with a stern hand. Few laws were recognized, or even existed, but an inherent faculty of logic, based on common sense, together with the stern necessities of self-protection combined with the early American characteristic of fair play, formed the principles of justice as then administered.

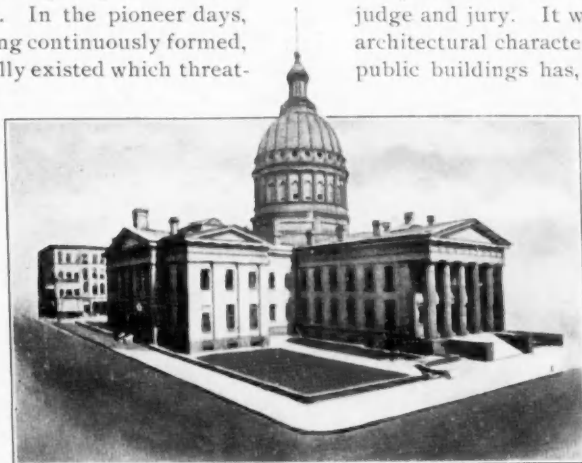
Thus our first courthouses came into existence, consisting usually of a crude log hut of a single apartment. Jails were seldom needed in those days, as there existed no sentimental prejudice against capital punishment, which was considered the only prompt and efficacious method of disposing of the guilty, as well as setting a wholesome example to others. As the settlements grew in importance and population, the schoolhouse and the courthouse kept pace with progress; and the latter gained all the more prominence owing to the interminable disputes and misunderstandings resulting from the government grants of land, and the difficulty of securing satisfactory titles to the various claimants.

As villages were transformed into cities the demand for all public improvements increased in proportion, and the church, the schoolhouse, and the courthouse grew relatively in importance, as became the dignity of civilized communities. Then came the conflict with the mother country resulting in an independent nation, and the various states were subdivided into counties, each county seat having its courthouse. Naturally the buildings began to assume more pretentious proportions, and the courthouse became the gathering point of the people from all the surrounding country, attracted as much by idle curiosity and the opportunity for political discussion as by the more serious interests to be settled by judge and jury. It will, therefore, be seen that the architectural character of our courthouses and other public buildings has, from the earliest days to the

present time, been proportionate to the growth and importance of the various communities. And yet, the simplicity and dignity which usually marked the buildings of colonial days, especially in New England and certain portions of the South, gave a charm and individuality to the architecture sadly lacking in many of our modern and more pretentious structures. One cannot but have an occasional feeling

of regret, and at the same time recognize the fact, that our architecture must necessarily keep pace with progress in wealth and prosperity.

A modest brick colonial courthouse, with its simple and dignified portico of wood, needs the setting and surroundings, and even the atmosphere, to which it is adapted, being sadly out of place in one of the crowded thoroughfares of our larger cities, hemmed in by ruthless and ungainly skyscrapers. Due allowance must also be made for the steadily increasing demands for space and expansion, and our modern courthouse of the average requirements must, therefore, of necessity be radically different from its simple and charming prototype of colonial days. At the same time certain fundamental principles governing the successful design of any building of a public or monumental character should be



THE OLD COURTHOUSE AT ST. LOUIS.

closely adhered to. Every effort should be made to frankly express its purpose, both in plan and exterior. The site and its surroundings should be carefully considered, and the character of the building conform to local conditions, with a view to making the most of the material at hand.

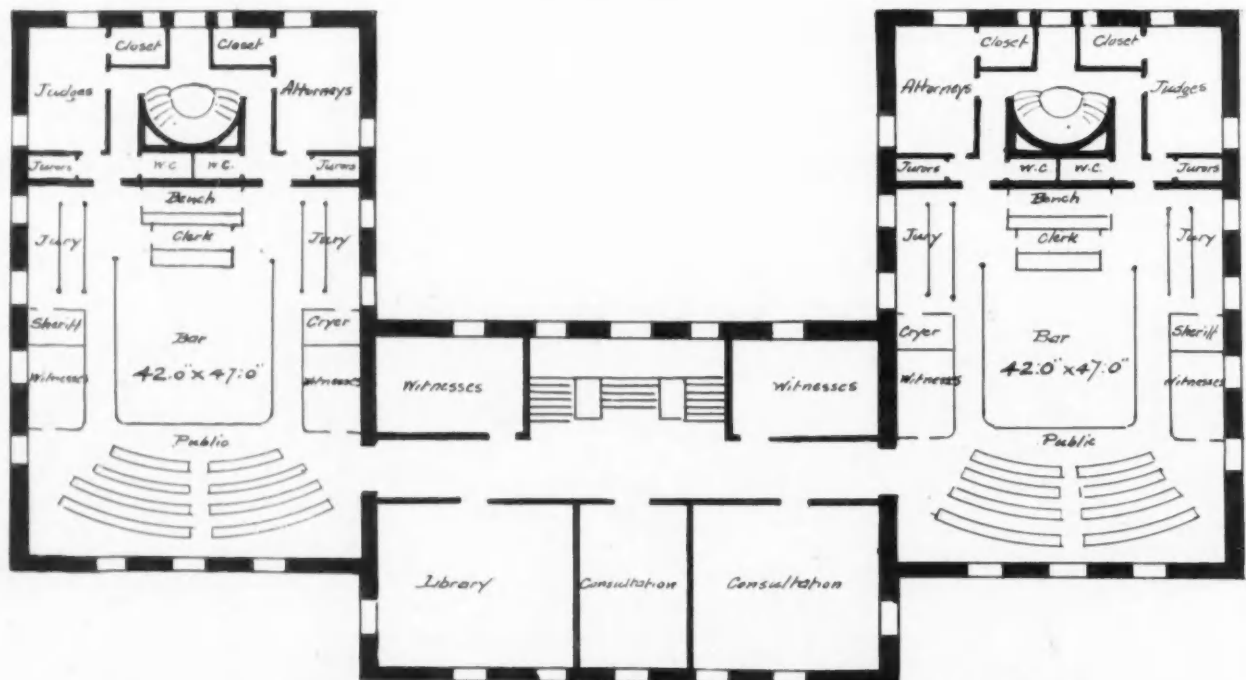
The study of the approaches should not be neglected, nor postponed until the building is completed,



THE OLD MIDDLESEX COUNTY COURTHOUSE AT EAST CAMBRIDGE, MASS.

features of the interior to which they give access. The circulation of halls and corridors should be direct and unmistakable, leading without confusion or unnecessary distance both to the staircases and elevators as well as to the various departments of the building.

After observing these preliminaries, which are more or less general in character, it may be in order to consider the more



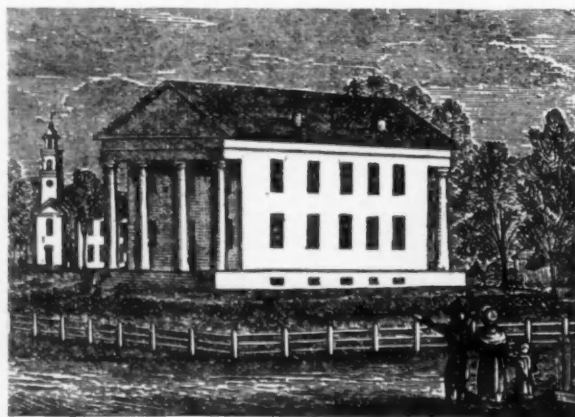
COURTROOM FLOOR, MIDDLESEX COUNTY COURTHOUSE, EAST CAMBRIDGE, MASS.

on the plea of economy or lack of time. An appropriate setting to an otherwise beautiful building is often hopelessly sacrificed and lost owing to a lack of that attention to this important feature at the beginning, which might have proved its necessity and secured its adoption.

The nature of the site and its surroundings should also, to a certain extent, determine the distribution of the entrances to the building, all of which should be governed by the importance of the streets upon which they face, and the

salient and distinctive features relating particularly to the average modern courthouse. These requirements will necessarily vary largely with the locality and the population, and the extent of territory which the building is intended to serve, and must, in any case, be governed by the amount of funds available.

Reference to two distinct types of buildings will perhaps serve as a partial illustration of general courthouse requirements; one, a county courthouse, and the other a combined



COURTHOUSE, 1829.



courthouse and postoffice building for the United States Government.

The county building, with the exception of jail quarters in the upper story, is devoted exclusively to court purposes, with the usual county offices in conjunction therewith. The first or ground floor contains those departments whose business directly concerns the public, namely, the recorder of deeds; surrogate's offices, where wills are probated and registered; the auditor and tax col-

lector; and sheriff. In addition to these are the offices of the county clerk, and a large meeting room and offices for the board of county freeholders.

together with a judge's room adjoining each; also jury and witness rooms, offices of the prosecutor, a bar consultation room, and library.

On the third floor are two minor courtrooms for civil cases, each with its judge's room adjoining, together with additional jury and witness rooms, a jury dormitory with private toilet, and a room for the grand jury, the latter connecting directly with the prosecutor's offices on the floor below by means of a private stairway. This floor

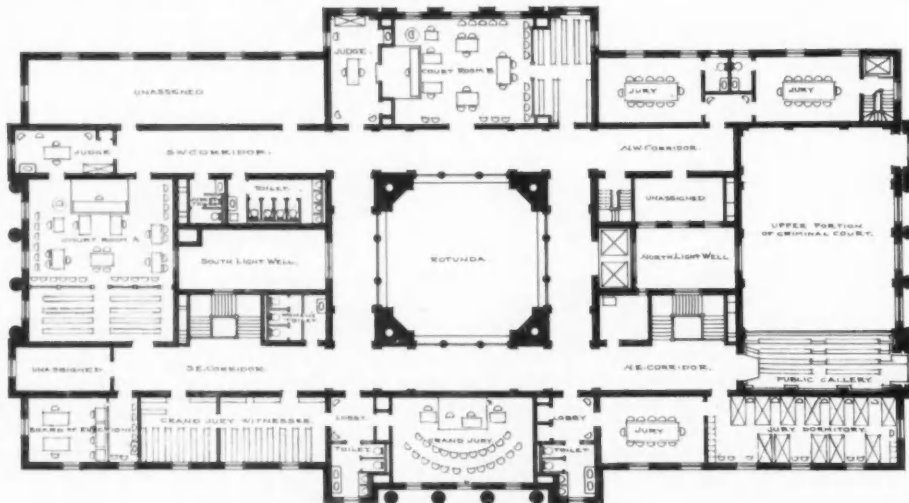
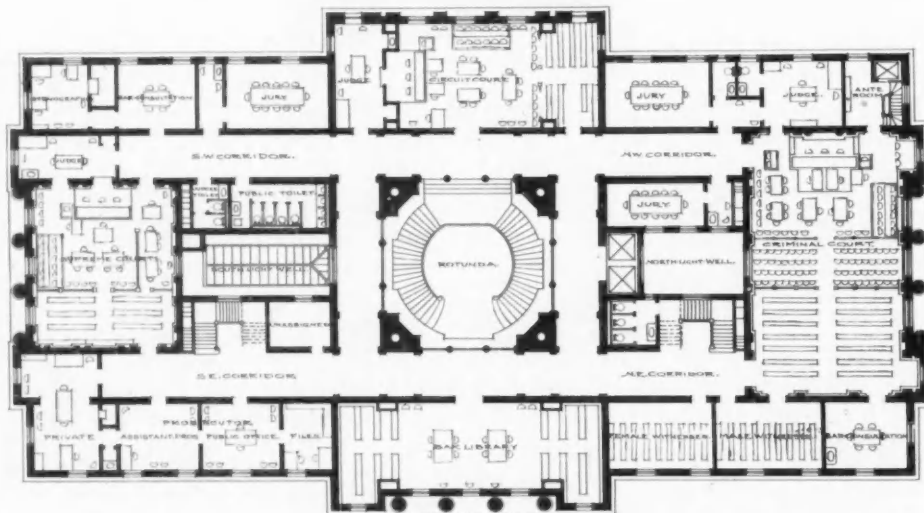
also contains a large gallery for the public opening into the criminal court below, which, on account of its size and importance, carries up through the two stories.

The top floor is devoted entirely to the jail, with space for about one hundred and fifty prisoners, in addition to offices for the warden and physician, a large kitchen, and an infirmary, together with suitable bath and toilet accommodations, both for staff and prisoners.

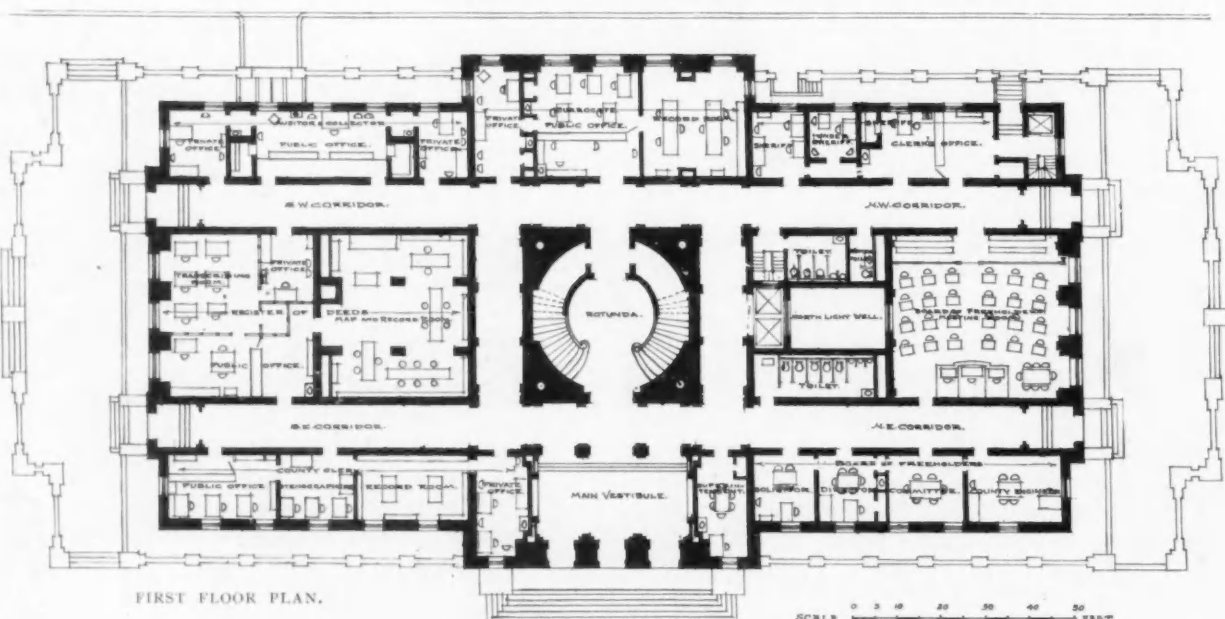
It does not, however, seem an ideal arrangement, either physically or morally, to combine a courthouse and jail in one building, and it was only for economic reasons that it was done in this case. It is probable that in the future there will be sufficient demand for additional space in the courthouse proper to justify the removal of the jail to a separate building, where it properly belongs.



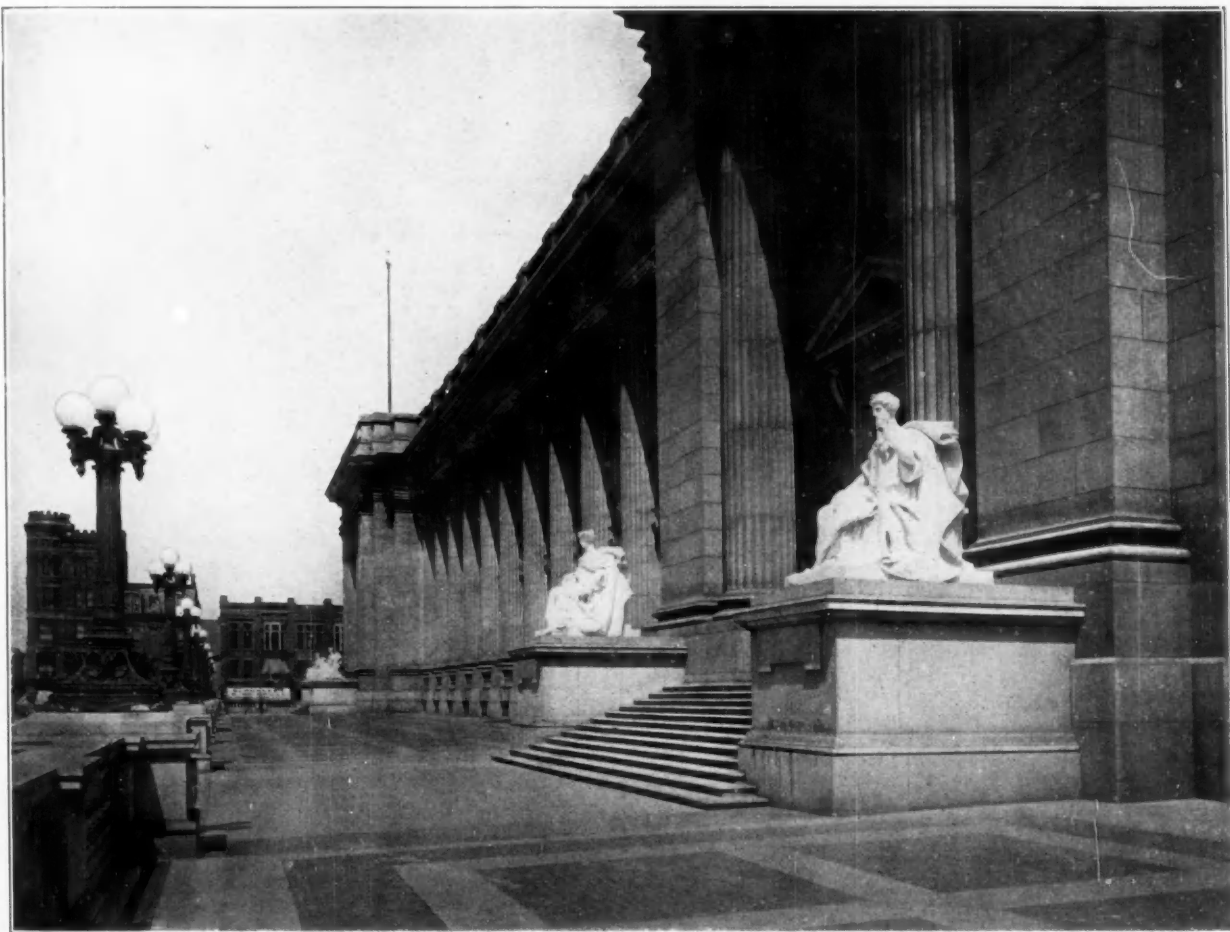
COUNTY COURTHOUSE AT CAMDEN, N. J.  
Rankin, Kellogg & Crane, Architects.

THIRD  
FLOOR  
PLAN.SECOND  
FLOOR  
PLAN.

FIRST FLOOR PLAN.

COUNTY COURTHOUSE, CAMDEN, N. J.  
Rankin, Kellogg & Crane, Architects.

SCALE 0 10 20 30 40 50 FEET



UNITED STATES COURTHOUSE AND POST OFFICE BUILDING, INDIANAPOLIS, IND.  
Rankin & Kellogg, Architects.







It seems hardly necessary to call attention to the importance of fireproof qualities in a modern courthouse. The nature of many of the documents, such as those pertaining to deeds and wills, is such that their loss or de-

The architectural treatment must also come in for its full share of careful study. Dignity and simplicity, well defined proportions, purity of detail, and appropriate material will all do their part towards securing a successful



COURTROOM, COURTHOUSE AND POST OFFICE, INDIANAPOLIS, IND.

struction would be indeed a serious matter. Careful attention should, therefore, be given to this feature, and the building so planned that the structural units are simple and straightforward, and the steel columns, beams, and girders amply protected throughout with suitable fireproof covering.

result. But to all these characteristics, which appear necessary, there must be added that inherent quality, difficult to describe, but always to be closely striven for, without which all efforts are futile, but which, when attained, will enable the observer to determine correctly the character of the building and the purpose of its erection.

#### COLOGNE CATHEDRAL CRUMBLING.

So much has been written of late about the unsafe condition of the cathedral at Cologne that the report of Dombaumeister Kertel, which was published in the *Zentralblatt der Bauverwaltung* will be read with interest. The report says that the building as a whole is sound and safe. The investigation has shown, however, that much of the outer part of the dome is in bad condition. Not only the ornamental parts, but the flat stone walls, have suffered more than even the experts knew. It is

remarkable, says the architect, that the signs of decay do not appear only on the very old parts, but are seen on those of the last century, and in some places which were repaired only twenty years ago there are unmistakable signs of decay. Nor are these ravages confined to one kind of stone. All the various kinds employed in the structure have been attacked, and the disintegration seems to begin not on the surface, but to work outwardly. The rapidity of the process is shown in the gallery on the north side, which is rapidly falling away, while five years ago it was intact.

## The Department Store Plan.

BY JOHN LAWRENCE MAURAN.

PRIOR to planning the Grand Leader Department Store Building, herewith presented, it was the good fortune of the writer to make a voyage of discovery among the department stores of the country in company with clients whose sole object was to incorporate in their own plans the best ideas obtainable. We saw not only the innermost workings, but heard at first hand the details of each manager's pet hobby, and what follows must be judged in the light of the above preamble.

Probably no architect ever designed a department store unaffected by the hobby or caprice of his client, and while this statement is likely true of every class of work, it is here almost fundamental, for the department store proprietor, or manager, has of necessity studied what appeals most strongly to his particular class of trade, or has worked up into a feature the "meet me at the fountain" type of advertising dodge.

With this in view as accounting for divergencies between conclusions written and those expressed in the typical plans, the first considerations in sequence are:

First: Shape of lot and relation to principal abutting streets and alleys.

Second: Type of show window for combined display, first floor lighting, and summer ventilation.

Third: Character of trade—exclusive or mixed.

Fourth: Access to floors, including character and location of accessory appliances.

Fifth: Detail considerations of heating, ventilation, lighting plant, cash and bundle systems, etc.

Discussing these considerations sequentially, it may be said of the first, that here indeed the architect will find that each site presents its own particular problem, but in general his plan should be as nearly rectangular as possible, the entrances of ample size and duplication on the principal street fronts—one or more groups depending on the length of the façade and the importance of the thoroughfare. A casual study of resulting aisle arrangement will convince the client, as well as the architect, that a corner entrance is expensive in floor space, window effectiveness, and circulation of incoming and outgoing shoppers. The service and freight elevators, delivery entrances, and canopy should, if possible, be located on an alley or on the least important abutting street.

The floor plan should be as open and generous as possible, giving extensive perspectives unbroken by stairs, elevators, etc., and never marred by an irregular or eccentric columniation. The size of lot and type of construction must govern column centering, but the plan shown is close to accepted spacing.

The second consideration may provoke a heated argument between architect and client, starting with a matter of taste, but proof positive may be easily adduced to show that the unbroken shell of plate glass front has gone to stay. The best "merchandise" recognizes the difference in dignity as well as the value of show window division, in the visible pier or column, and is ready to let his competitor indulge in the expanse of flimsy glass underpinning.

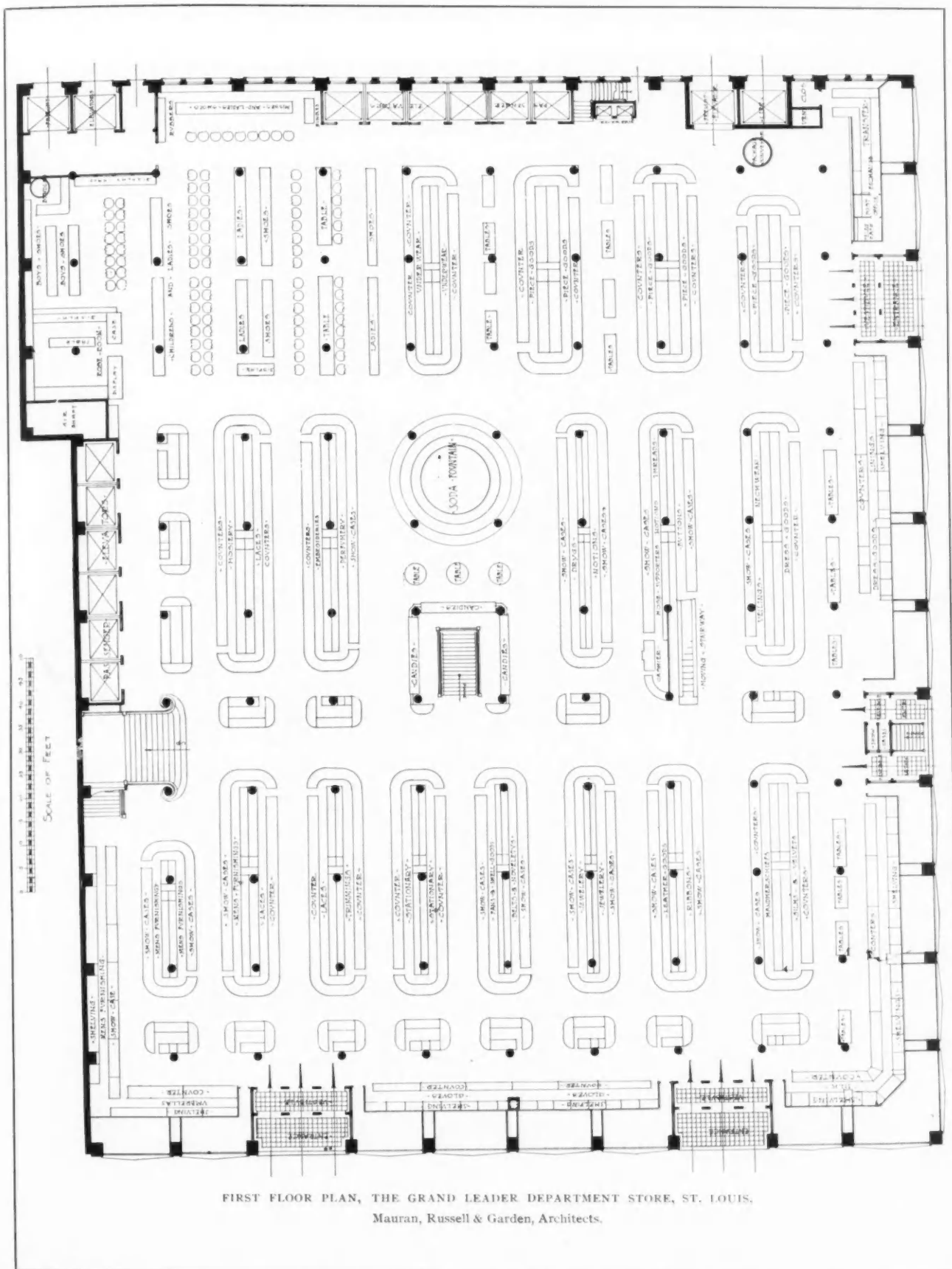
Many effective show windows are constructed without enclosures other than draperies concealing the back shelving, but in most of our cities atmospheric conditions enforce the need of tight wood or wood and glass enclosures, and reference to the plan will indicate the means of access for the window dressers, while intercommunication from window to window is maintained throughout the paneled false work at the rear of structural outside columns back of the heating and ventilating pipes which it conceals. The windows should have the single sheet of plate glass extend from an average of ten to eighteen inches above grade to a height of ten feet six to twelve feet above grade in order to secure ample transoms in first floor. These transoms should be hinged at the bottom and mechanically operated in series, for in summer weather no artificial ventilation can produce the necessary air movement. Ample plug socket capacity should be furnished for holiday display to supplement the accepted transom bar concealed reflector.

Even in our largest cities it is a serious question whether the highest class of trade can be catered to exclusively—the well to do spend much of the year out of town and it is conceded that the middle and poorer classes respond most quickly to the bargain sale advertisements, so it would seem safest to assume that the internal planning, the location of staple goods, the disposition of elevators, and the deft combination of refined appearance and atmosphere with those "features" which attract the bargain hunter without repelling the fastidious, will most successfully meet the requirements of our third consideration.

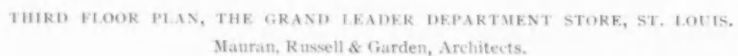
It is hard to over-estimate the importance of careful study under the next heading, for the life blood of a successful department store must course through all departments, i.e., the higher percentage of customers induced (not forced) to go to the upper floors, the more successful the plan. Generally speaking the basement should contain the cheaper grades of advertised bargains, ingress and egress to be furnished by broad, easy stairs either from the vestibule or from the main floor on the main entrance artery so as to interfere as little as possible with the general circulation, or by both. Elevators and escalators to the basement are of minor importance, but not so the upper floors to which they are indispensable.

Opinions differ widely as to the value of an escalator as a trade factor, but certain it is that the broad step type is practical as a novelty and a real relief to the elevator service on busy days. The escalator need ascend only and its usefulness seems to reach its climax at the third floor. Its location should be on the main cross aisle off the center where it will interfere as little as possible with the general perspective.

Stairs should never be featured to the extent of central floor location, but should be broad, easy, and attractive, adjacent to the elevators, and this brings us to the crux of the matter: In some stores otherwise successful elevators have been grouped radially out in the floor, destroying perspective, confusing passengers, and mutil-









ating the scheme of aisle circulation which must be maintained. Others have placed banks of elevators of few units near entrances with the hope of facilitating access to upper floors, and in some cases have placed them modestly behind tight partitions. A careful survey of the situation must lead to a very different plan. Unless the ground be nearly square and of considerable area one bank of as many units as possible located about the center of the long (perhaps blank) wall opposite the principal street will give the best results. With a square plan and two principal streets the accompanying plan seems to be the best commercial solution. The object is to lead customers seeking upper floors past as many display counters as possible to an ample number of elevator units where they can get quick service without suffering the annoyance of being hustled from one over-worked bank to another equally crowded. Most shoppers are not clever, and everything must be made clearer than daylight so this one large bank (or two at the most) becomes familiar by usage and should be evident to the stranger by having a polished wire glass enclosure through which the cars may be seen and each attractive floor be revealed, in passing, to the occupants. Every safety appliance on the elevators is money in the owner's pocket.

Much might be written covering the multitude of matters under the fifth heading which at best can only be treated here more or less superficially. Every department store should be sprinkled (the system either exposed or concealed by a suspended ceiling) and ample fire escapes provided, preferably of the enclosed concrete stair type shown on the plan. If power or heat cannot be secured from outside service companies, it seems unwise to encroach to the necessary extent on the valuable basement space, but rather to locate the plant in a sub-basement, or better still—as was done in the building here shown—place it under a separate roof across the street. Here is generated the steam for operating the dynamos for lighting, elevator, ventilating motor, tube system motor, etc., while the exhaust is used for heating. A large storage battery has been found economical for lowering the elevator peak and for elevator and scrub service lighting after hours. A large coal supply either at hand or nearby is essential to avoid shutdowns.

Artificial ventilation for at least the basement and first floor is essential, and so much data exists that no further comment is necessary except a word of warning that the client usually expects too much in the way of cooling in hot weather, for it is impossible to produce the cooling effect of air movement, even though the temperature be lowered, except by dangerous and expensive induced cold draughts—hence the previous reference to the need of transom auxiliaries in the first floor. The resulting dust practically prohibits them in the basement.

The open light well is almost the only opportunity presented for a display of the designer's skill on the interior, but truth compels the writer to state that its value seldom offsets the tremendous fire risk and loss of floor space.

It is a self evident proposition that the top floor should contain the stock room and almost equally axiomatic that on the next floor below may be located an attractive and well conducted restaurant, for no other lure is so certain

to tempt the suburban or "professional" shopper up through the departments requiring this publicity. The location of the writing room, manicure, and hairdresser, as well as the office gives opportunity for multiplying the effectiveness of this device.

The hospital rooms with physician and trained nurse have passed from the novelty to the necessity stage in the larger department stores. Not only must the shopper be furnished free with all the comforts of home in the modern store, including public telephone service, but the home staying purchaser must be permitted to order by telephone from the clerk in each department, so this individual counter telephone service is no less important than the modern bundle wrapping and cash register station localized in every store unit. The necessity of ample, attractive lavatories for men and women customers on almost every floor is second only in importance to the obvious economic need of the same local accommodations for employees. The saving of time is the saving of money and so it is as essential also to provide separate elevator service and a special restaurant for the employees, as it is to have automatic dummy elevator service for the replenishing of stock, and the spiral package chute to the delivery room.

It is obvious that the concentration of the freight and employees' elevators, the dummies, chute, and other service accessories should be located on or near the service street or alley, for speed is a competitive argument. Unless the abutting streets are highly congested, or all of great importance, it is seldom economical to have stock or delivery wagons enter the building—the most effective handling being by freight elevator after unloading, to the stock room, thence by freight and dummy to the selling floor, thence by chute or freight to the package room where distribution is made into the wheel trucks or "buggies," these in turn being raised to the shipping platform by a sort of freight escalator combined with fixed stairs, while a one story lift takes care of furniture and other bulky goods.

Outside the universal ice water system there are so many details of special problems which happily are not universal, such as the photograph gallery, cold storage for furs, and soda water fountain, that it seems unnecessary to dilate upon them, while artificial store lighting and other technical problems have been admirably treated in many available papers.

Each store is after all a special problem, but it is hoped that the solution may be assisted at least by the experiences herein recorded.

**H**ARTFORD has done even more than erect the largest and finest stone arch bridge in the world. By this improvement it has gained a remarkable riverside park half a mile in length, lying thirty-five feet above the water and serving as an approach to the bridge. From this promenade a fine view of the Connecticut River northward and southward is obtained; but that which delights the Hartfordites is that the worst tenements of the city have been removed to make way for this beautifying of the riverside. Hartford's example may well be followed by many other municipalities in America, and that rare possession for a town, a waterside park with fine building sites behind it, obtained.

## English Brickbuilders.

THE WORK OF R. WEIR SCHULTZ.

ANYONE familiar with the architectural profession of to-day will know that deep reading, erudite research, painstaking measurement, diligent study of old work, do not necessarily result in the production of good design, even when associated with initial aptitude and ability. There are many names that remind us of that fact very forcibly — names of men whose ability is unquestioned, men who have had a university training, men who are wide in their knowledge though narrow in their sympathies. The reason is, perhaps, to be found in the self-consciousness of these architects, which commits them to such productions as are considered "individual." In truth, this is no other than a cultured affectation, and it ends in failure. A certain proportion of architects, however, trained in this school of thought, do rid themselves of the taint — possibly through an intelligent intimacy with good construction as well as a cultured knowledge of design. Mr. R. Weir Schultz is one of these men; an architect, moreover, whose work is the more surprising, when we remember that he had devoted great study to archaeology and ancient architecture — particularly that of the Byzantine period. As a rule, when an architect becomes wedded to archaeology

in any form, he lapses into vagaries, loses touch with the present, and stifles his natural tendencies, in the excessive study of the past. That fault is nowhere displayed in Mr. Schultz's work. It is essentially modern, while scholarly, broad in treatment, eminently adapted to its needs; displaying, too, an appreciation of the

craftsman's work, whether in wood, plaster, or brick. His houses are essentially English in feeling. They suit their environment; they do not shout at you; they compose well and they are planned in a manner that does not engender the thought that architect and client have been at greatest pains to do everything in the opposite way to what is considered usual by the ordinary sane man. This is a point that needs emphasizing, because in the work of some architects who have achieved a sort of reputation there is an incessant display of modulated eccentricity.

Mr. Schultz is very happy in his general schemes and in the design of his brickwork detail, and the results which he has achieved by the contrivance of small embellishments with plain bricks used in many novel ways are most pleasing. The accompanying illustrations clearly show this.

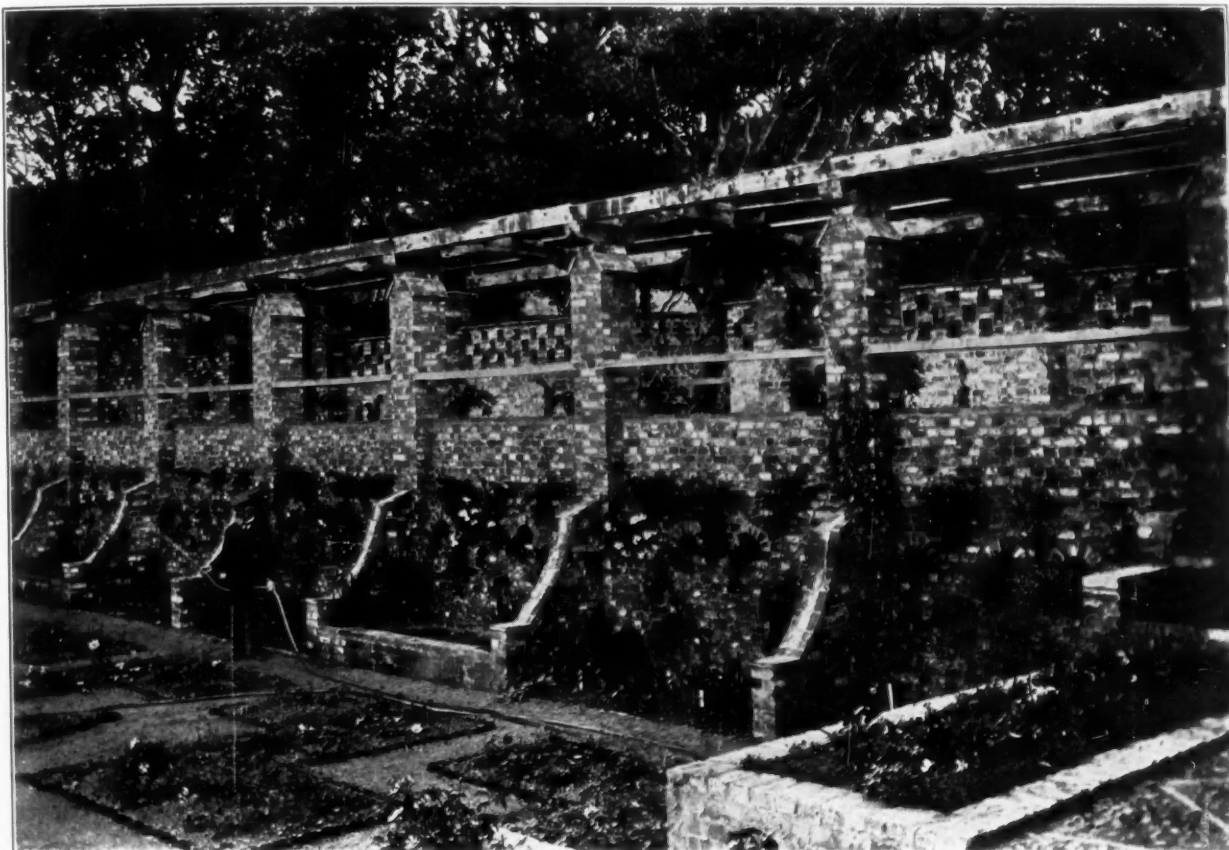
Pickenham Hall, a large country house in Norfolk, is



UNIVERSITY SETTLEMENT HALL, CARDIFF.



ENTRANCE FRONT, PICKENHAM HALL, NORFOLK.



GENERAL VIEW OF PERGOLA, HOUSE AT FELIXSTOWE.

a typical example of his work. The whole is carried out in red brick, running five courses to the foot, the roof being covered with red tiles, hand-made in the old manner. Over the entrance are figures and carving in stone, this work having been modeled from the architect's sketches. The whole design is sturdy in effect, while the variety in some of the brick enrichments is astonishing. The total cost of this house was about \$100,000.

Another good example of Mr. Schultz's work is the house at Hever, "How Green." This has been erected on a site overlooking the valley of the Eden, the plan being the outcome of the requirements to get as much sun as possible into the rooms. The walls are built of red bricks, with tile-hanging and roof tiles. The windows have oak frames and leaded lights, the balcony and porch are of oak, and there is an oak staircase, with oak linings to walls of same and of the hall. In the hall is an interesting fireplace of brick, with some old tiles introduced effectively. With the exception of some

modeled plaster friezes in the library, drawing room, and dining room, and some carving to chimney-pieces, the interior of the house is finished quite simply. The garden is a notable feature, having been laid out from Mr. Schultz's design. It is a very pleasant place, and makes the scheme complete.

Mr. Schultz, it may be mentioned, gives special attention to his garden schemes, recognizing how essential it is that the surroundings of the house should be included in the architect's design, in order that an harmonious result may be secured.

As one of many examples, we may turn to the pergola which has been erected under his direction at a house at Felixstowe; and in particular we may note the scheme of a water basin carried out with brick, shells, bottle-ends, and drain-pipes, which occurs in the length of this pergola; the treatment is novel and effective both in form and color.

At Tylney Hall Mr. Schultz has carried out a considerable amount of work, included in which is

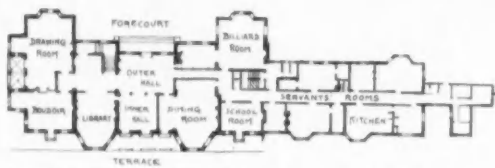


WATER BASIN IN PERGOLA, FELIXSTOWE.

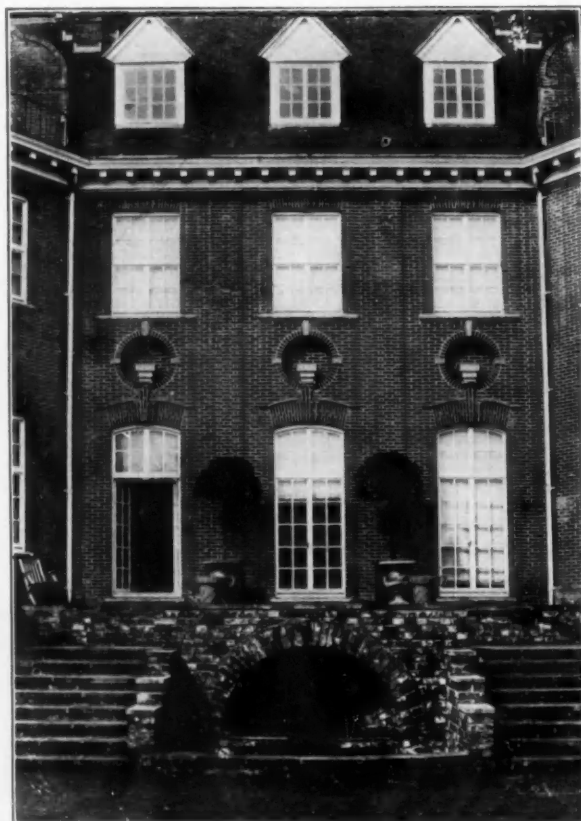




GARDEN FRONT.

PICKENHAM HALL,  
NORFOLK.

DETAIL OF FRENCH WINDOW AND HOOD.



DETAIL OF EAST ELEVATION.

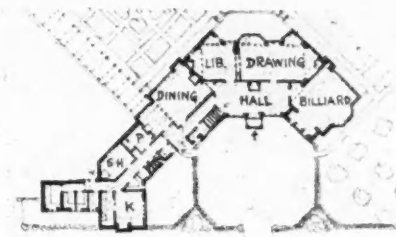




SOUTH FRONT, "HOW GREEN," HEVER, KENT.

a high water tower, built of brick, with half-timbering in the top portion and a thatched roof, while numerous other treatments in the garden testify to the vigor and variety of his design.

A curious little building is the University Settlement Hall at Cardiff, which has been erected in connection with the dockers' movement. A very plain and cheap building

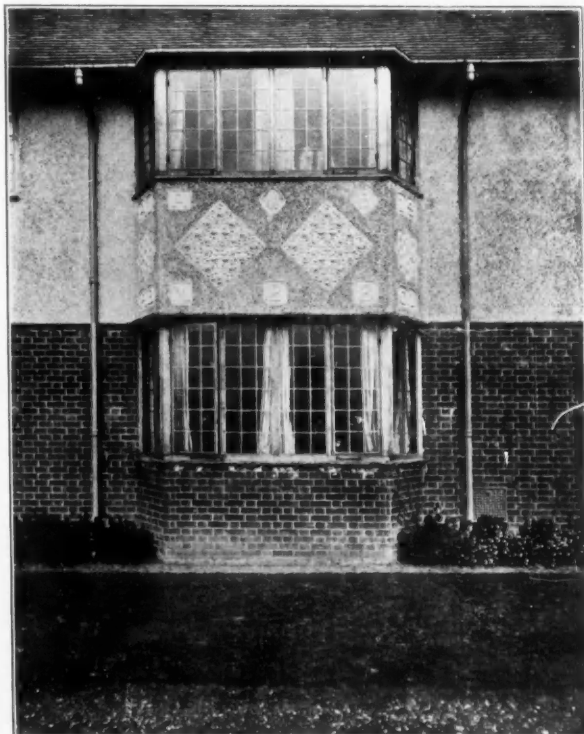


PLAN, "HOW GREEN."

was required, and this Mr. Schultz has provided, securing also as much architectural quality as was possible in the circumstances. The hall accommodates six hundred persons and cost \$9,000. The walls are of red bricks, pointed inside and out, having in the gable at the front a small panel by Mr. W. Goscombe John, A. R. A. It is the roof, however, which attracts chief attention.



HALL FIREPLACE, "HOW GREEN."



DETAIL OF BAY WINDOW, SCALERS HILL.



WATER TOWER, TYLNEY HALL.

This is built up of deals of small scantlings bolted together and carrying boarding, which is covered with felt and laid over with tiles. This is a very economical form of roof and Mr. Schultz has used it in other small halls, such as the village hall and reading room at Shorne.

These few notes, with the accompanying illustrations, serve to indicate the character of Mr. Schultz's work. It is preeminently English (though the architect happens to be Scotch) and while based on the models which add so much charm to the English countryside is full of fresh life and imbued with modern feeling.

The houses, moreover, are eminently suited to live in as well as to look at, and are free from those foibles



GARDEN GATEWAY, TYLNEY HALL.

which so frequently mar the work of architects of outstanding ability.

#### THE GOVERNMENT TO TEST CLAYS AND BURNT CLAY BUILDING MATERIALS.

**A**N investigation of clays and clay products needed in Government work is to be undertaken at once by the United States Geological Survey, Technologic Branch. A ceramic section has been created, with A. V. Bleininger of Champaign, Illinois, as ceramic chemist.

This is an important extension of the structural materials investigations which have been carried on for several years with a view to determining the nature and extent of the materials belonging to or available for use in the building and construction work of the federal

Government and how these materials may be used most efficiently.

With the growing scarcity of timber and the consequent increase in price, federal officials in charge of the construction work, which now amounts to \$40,000,000 annually, have been looking about for desirable substitutes, such as clay products. The enormous fire losses of the country have also been an incentive in this direction, the federal engineers realizing more than ever before the need for more definite knowledge concerning the fire resisting properties of structural materials. All this has led the Government to take up a general investigation of the clays and clay products.

The importance of the clay industry is seen when it is realized that the value of such in 1907 was \$149,697,000, a gain of fourteen per cent over the previous year.

Mr. Bleininger, the ceramic chemist, in speaking of the plans for the work of his section said: "First, it is intended that it should do the testing of clay products such as common and pressed brick, paving brick, hollow tiles and conduits, sewer pipe, fireproofing, terra cotta, enameled bricks, and glazed tiles, floor and roofing tiles, fire brick, electric porcelain insulators, and other structural goods submitted for this purpose by the construction bureaus of the Government. Though standard tests of most of the above materials do not exist as yet, the work of the division would tend to fix and unify the methods of testing of the burnt clay products, thus insuring the highest quality of ware obtainable in the industry for the construction work of the Government. It is in no way intended that the testing be done arbitrarily without due regard to the just claims of the manufacturers, but it is proposed to aim for results beneficial to both the Government and the conscientious manufacturer.

"The second part of the activity of the new section is to consist in evolving standard tests of clays for the purpose of determining the use to which they are best suited, thus assisting in the development of the clay resources of the country and avoiding the great money losses caused by ill-advised investments in low-grade clay properties. This field is an extremely important one and was urged upon the United States Geological Survey by the American Ceramic Society and the National Brick Manufacturers' Association, the two leading organizations devoting their attention to these lines.

"The standardization of clay testing is proposed to be carried on in cooperation with the English and German investigations so that finally international standards may be adopted.

"The third class of work to be entered upon deals with the general manufacturing problems, the solution of which would mean the elimination of much loss, or would lead to greater efficiency and perfection. There might be mentioned the important question of 'white wash' or efflorescence appearing on brick walls, a difficulty causing serious annoyance and loss to manufacturers and users of bricks by marring the beauty of many structures.

"In all of these investigations the Survey will consult with an advisory committee composed of a number of leading clay manufacturers and technologists, so that the needs of the industries will be served in the best manner."



HOUSE FOR AMOS L. SCHAEFFER, ESQ.

ENGINEER OF PUBLIC SERVICE COMMISSION, NEW YORK CITY.  
SQUIRES & WYNKOOP, ARCHITECTS.

As shown by the illustrations the walls of this house are built of hollow tile terra blocks with stucco finish on the exterior.

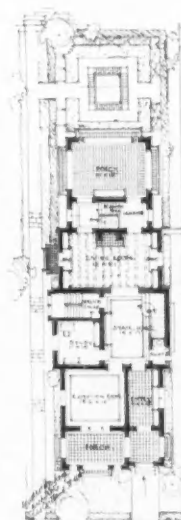
The foundation walls to grade are of local stone.

All walls up to the second story level are 10 by 12 by 12 hollow terra cotta tile. These are laid on end and figured twelve inches including joint. Story heights are therefore in even dimensions of feet. These blocks are so made that they can be broken in six inch lengths. The second story construction is similar except that the tiles are eight inches thick instead of ten inches as in the first story walls. In this house there are three interior bear-

ing walls and the framing is parallel with the long dimensions of the building for end sections and parallel with short side for middle section.

All openings are formed with 2 by 4 studs as a rough nailing for wood door jambs and to form the bottom of concrete lintels and these studs are left in place. The window openings are not rebated, but the window box shows complete on the exterior and has a head the same width as the jamb. It is secured in place by nailing to wood blocks in the tile wall. The joint is packed with oakum and has given no trouble. The trim on the inside covers the joint and a mold on the outside covers the stucco joint.

The exterior walls have a finish-



A HOUSE BUILT OF HOLLOW TILE TERRA COTTA BLOCKS WITH EXTERIOR FINISH OF STUCCO.

ing coat of stucco in the water of which is mixed ten per cent Anti-Hydro waterproofing. The interior walls were waterproofed with a coat of Universal Compound waterproofing, and the plaster for the finish was applied directly to the tile.

The dining room, living room, and hallways are wainscoted or decorated with woodwork which is secured to wooden nailing blocks put into the tile walls before plastering.

The architects of the building have built several houses of this type, and have found that they can build more easily and quickly than with other materials; that the walls are in all respects weatherproof, and that it is a comparatively inexpensive construction. The average cost for ten houses which they have built is 21 cents per cubic foot.



## Editorial Comment and Miscellany.

### WOOD STILL PRINCIPAL MATERIAL USED IN BUILDING CONSTRUCTION ACCORDING TO GOVERNMENT REPORT.

Great as the advance in fireproof construction has been during the last ten years there has been no letup in the use of lumber, and both architects and builders find themselves so dependent on wood to-day that they are compelled to admit that the forests of the country are likely to be the chief source of building material for many years to come.

"The use of cement, terra cotta, brick, and stone, with a framework of steel, will make it possible soon to do away with wood entirely," is a remark often heard, and, indeed, when one stands on lower Broadway and looks up at the towering skyscrapers, the statement seems to contain much truth. As a matter of fact, however, the popular idea that fireproof materials will do away with the need of using lumber in a comparatively few years is a very erroneous one. All of the various fireproof materials going into the approved construction of the more substantial buildings are used in greater quantities now than the world dreamed of a few years ago, yet the heavy demand for lumber continues.

That wood predominates is shown by the annual building records. Of the permits used for buildings erected last year, approximately 61 per cent were constructed of wood, and the remaining 39 per cent of fire resisting material, according to a report issued by the Geological Survey on operations in forty-nine leading cities of the country. These figures are the more significant when it is realized that they only represent the building activities in the largest cities; they do not take into account the construction of dwellings, stores, and other buildings in the thousands of small cities and towns scattered over



CITY-INVESTING BUILDING, LOWER BROADWAY, NEW YORK.  
Francis H. Kimball, Architect.  
All the terra cotta work by the New York Architectural Terra Cotta Company.

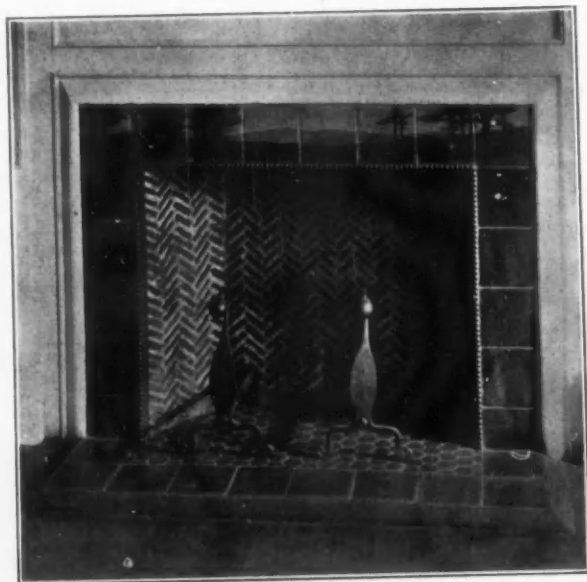
and not included in the forty-nine cities on which the reckoning is made.

In towns and small cities wood is usually the predominating building material and it is safe to say that if the statistics had included figures for all places of whatever size, the percentage of wooden construction would have been much greater. These figures, as a rule, are only for the corporate limits, and the suburbs of these cities have each very large amounts to be added. The cost, also, is relatively higher in these cities than in towns nearer the base of the supply.

### A MORE BEAUTIFUL BOSTON.

Within a comparatively short time the Charles River basin will be usable for the newer purposes for which it has been made, and when the new roadway on the southern side is completed and provision is made for permanent headquarters for aquatic sports and for pleasure craft, then it will be shown whether Bostonians are alive to an unrivaled opportunity which nature, applied science, and the civic imagination of a few far-seeing citizens have provided for them. Certain it is that with completion of the basin an important new chapter in the improvement of Boston will have been written, and an example set that other American cities, similarly situated, are likely to imitate.

The record which Harrisburg, Cleveland, Buffalo, St. Louis, St. Paul and Minneapolis, Hartford and Springfield have made during the past few years in utilizing their river fronts for parks, boulevards, and fine residen-



A FIREPLACE FACED WITH GRUEBY TILE.



tial districts shows that the era of relegating riparian lands wholly to commercial and transportation uses has passed. Had foresight and wealth come earlier the expense of the process of restoration and appropriation would have been less to taxpayers. But cost what it may, the high-grade American city of the future will not be reconciled to factories and tracts where parks and driveways should be. Commerce will have to share the territory, more than it has in the past, with those who have in mind the promotion of physical health, municipal adornment, and the people's recreation.

THE Illuminating Engineering Society, organized to advocate systems of artificial lighting less destructive to the eyesight than the ordinary incandescent burner, recently held a meeting in the St. Gabriel's Park Branch of the Carnegie Libraries in New York. The building was lighted according to designs prepared by a distinguished member of the society and which have been adopted for the lighting of similar buildings in the future. Among the innovations may be named the following: A lamp for a reading table outwardly resembling the ordinary green-shaded burner, but provided with a reflector which equal-

ized the amount of light, so that a book placed upon the outermost edge of the table received quite as much light as the one directly under the lamp. Another sort of reflector over the book racks makes the illumination there uniform, so that titles on the lower shelf may be read as easily as those nearest the light. An entirely different

arrangement is employed to light reading matter in a horizontal position from that in a vertical position. No incandescent lights are left unshaded; and there is a careful distinction made between local and general lighting so that no power need be lost in supplying general illumination where light is needed only for reading purposes.

MADISON Square Garden has been placed upon the market for sale. The stockholders, meeting November 12th, decided to bring to an end what they describe as twenty years of carrying the property *pro bono publico*, without a cent of profit to themselves. Of the three parts which comprise the building, the arena has been depended upon alone to carry the investment. Without it many of the events that have become institutions of the New York twelvemonth would have been impossible. The building was the first important



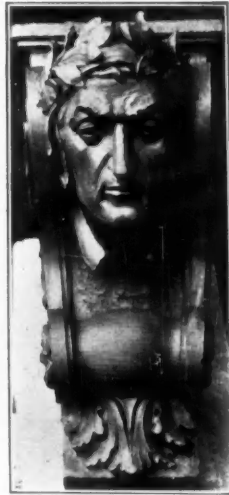
DETAIL BY CHICKERING & O'CONNELL, ARCHITECTS.

Atlantic Terra Cotta Company, Makers.



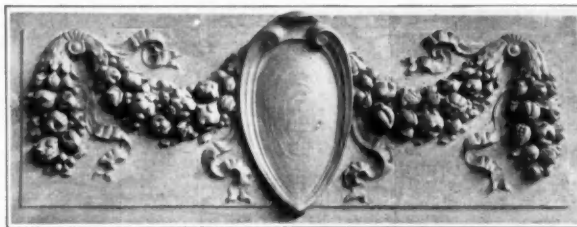
DETAIL BY DAWSON & MC LAUGHLIN, ARCHITECTS.

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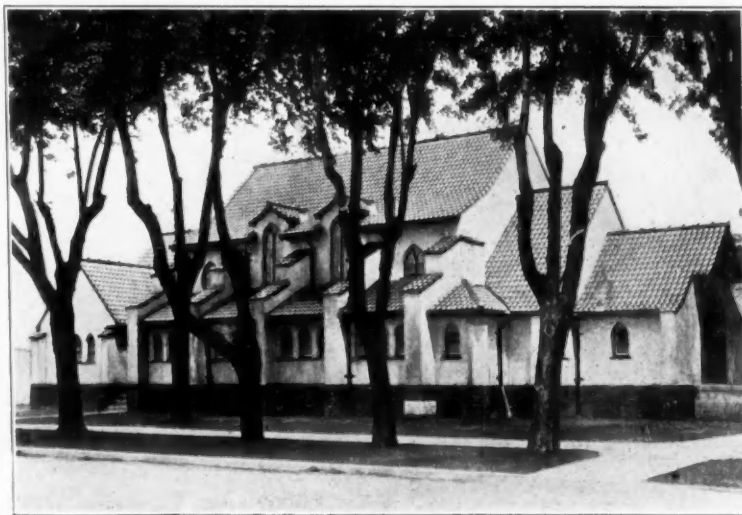


DETAIL BY CHICKERING & O'CONNELL, ARCHITECTS.

Atlantic Terra Cotta Company, Makers.



DETAIL BY CLINTON & RUSSELL, ARCHITECTS.  
Conkling-Armstrong Terra Cotta Company, Makers.



✓ CHURCH OF CHRIST, SCIENTIST, SOUTH BEND, IND.  
S. S. Beman, Architect.  
Roofed with Ludowici-Celadon Tile.



DETAIL BY JARVIS HUNT, ARCHITECT.  
American Terra Cotta Company, Makers.

a paying institution, it being too far removed, in their opinion, from the amusement seeking population and the main thoroughfares. From another point of view, a building with the function of an arena cannot earn an amount sufficient to justify such an outlay as the very ornate architectural character of the Garden and the cost of its central location have required. The fate of this, one of the most beautiful structures of New York or any other city, will probably be to afford a site for a purely mercantile building, occupying the whole of a once distinguished block.

#### ARTISTS' GUILD, ST. LOUIS.

This building which is illustrated in the plate form of this number is built of paving bricks laid up with big white joints. Green enameled bricks in English size, and orange colored faience, have been used in the pattern work of the walls.

#### BUILDING OPERATIONS FOR OCTOBER.

Building operations took a decided upward turn during the month of October. Official reports from some

fifty cities compiled by The American Contractor, New York, show an aggregate gain of 18 per cent, as compared with October, 1907. Twenty-six cities show an increase in building operations of from 2 to 236 per cent, and twenty-four show a decline of from 2 to 78 per cent. The principal gains were: Chicago, 25 per cent; Dallas, 52; Denver, 65; Des Moines, 46; Grand Rapids, 103; Mobile, 244; New York, 69; Philadelphia, 58; Salt Lake City, 55.



DETAIL BY HELMLE & HUBERTY,  
ARCHITECTS.  
South Amboy Terra Cotta Company,  
Makers.

#### IN GENERAL.

Under the administration of the Board of Extension Teaching, Columbia University announces the beginning of its second year of Evening Technical Courses, which will include teaching in architectural draughting, architectural practice, architectural engineering, and history of architecture. These classes are intended for draughtsmen from and in and about New York — the object being to give a complete architectural education to those men who are unable to profit by regular courses in architecture at the universities.

The contract for the erection of the new passenger station of the Chicago and Northwestern Railway Company has been let to the George A. Fuller Company. The contract comprises the expenditure of approximately \$5,000,000, and stipulates that the new depot shall be completed within two years from the time work is begun. The station is to be one of the largest in the world, covering, with the train shed, ten acres of floor space devoted to the public use. Its total cost, inclusive of the cost of the ground upon which it will stand, will approximate \$20,000,000. The train shed will be 840 feet long and 320 feet wide, and will contain 16 tracks, each with a capacity of fifteen cars.

The house at 5 East 51st street, New York, Percy Griffin, architect, was by mistake illustrated on pages 199 and 203 of THE BRICKBUILDER for September. This house is owned by John A. Melcher, Esq., and is not one of the group of houses on West 74th street, which belongs to the Clark Estate, as it would appear from the illustration on page 203.

The Government has bought for \$450,000 a block immediately west of the new Union Station at Washington, and will use it as a site for the new city post office.

The first two of the new group of buildings for the Bellevue Hospital, New York, were put into use November 5th. They are known as



DETAIL BY SCHWARTZ &  
GROSS, ARCHITECTS.  
New Jersey Terra Cotta Com-  
pany, Makers.



DETAIL BY HENRY C. PELTON, ARCHITECT.  
Brick Terra Cotta and Tile Company, Makers.



DETAIL EXECUTED BY ST. LOUIS TERRA COTTA COMPANY.

"Pavilions A and B," and together will accommodate about four hundred patients. The buildings were started in 1905, and their cost has been about \$1,000,000. McKim, Mead & White are the architects.

Augustus B. Higginson and E. Russel Ray have formed a copartnership for the practice of architecture, under the firm name of Higginson & Ray. Offices, McKay Building, Santa Barbara, Cal.

W. Siwart Smit, General Manager of the Twin City Brick Company, St. Paul, Minn., is making a tour of Europe for the especial purpose of getting new ideas for color, shape, and sizes of bricks.

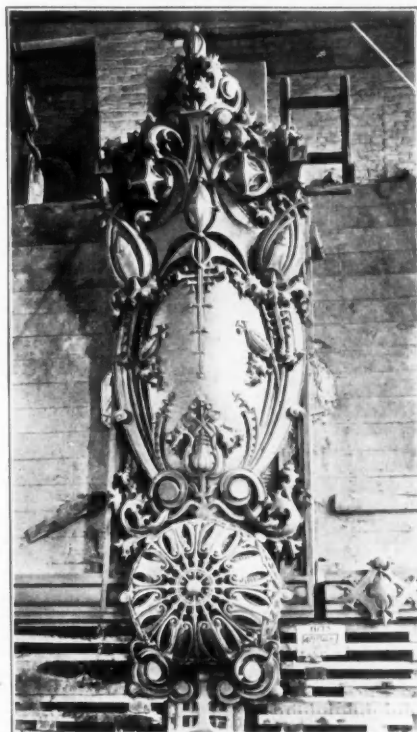
The Twenty-third Annual Convention of the National Brick Manufacturers Association will be held at Rochester, Feb. 1 to 6, 1909. The headquarters will be at the new Seneca Hotel.

The Western Brick Company of Danville, Ill., has in four years increased its annual product from five to twenty-five millions. Their specialty is a medium priced facing brick.

They will place upon the market during the coming year a number of new shades. Their bricks are made from shale which makes them highly vitrified and impervious.

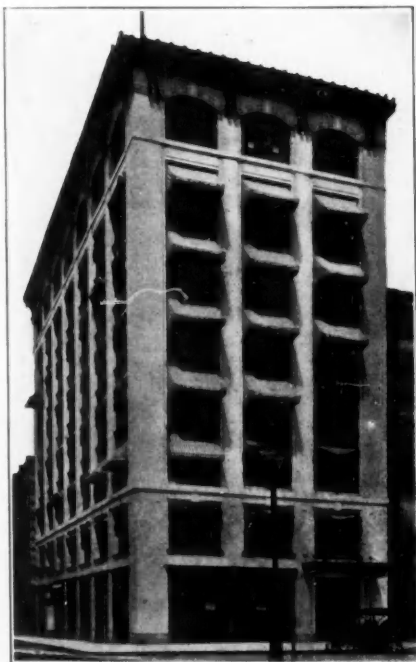
The Twin City Brick Company is now constructing a large stiff-mud plant for the manufacture of a new patent interlocking facing block. This material gives all the effect of terra cotta

and is manufactured in all the colors of their facing brick. The cost of construction with these blocks will be little more than that for frame. Architects and builders who have seen these blocks have expressed the opinion that this type of construction meets a demand which has existed for years. The new material will be placed on the market April 1, 1909.



DETAIL BY WILLIAM J. BRINKMAN, ARCHITECT.

Northwestern Terra Cotta Company, Makers.



AN OFFICE BUILDING AT DETROIT.

Albert Kahn, Architect.

Exterior of Enameled Brick, Made by American Enameled Brick and Tile Company.

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**WANTED.** High class architectural designer, well up in modern designing and rendering and familiar with the best class of work in the smaller cities. State experience and salary expected and give references. FULLER AND PITCHER, Architects, Albany, N.Y.

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*A book that will assist you in the Hospital Competition*

### "The Organization, Construction and Management of Hospitals"

By MEYER J. STURM, Architect, Chicago, and  
ALBERT J. OCHSNER, B.S., F.R.M.S., M.D.,  
Professor of Surgery, University of Illinois, Chicago

The Cleveland Press, Chicago, Publishers

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#### AN OPINION

"The Organization, Construction and Management of Hospitals" has been placed in our library, and I can say that we consider it a very valuable addition. I have had a good deal to do lately with hospitals in the way of caring for competitions, and I am very glad to have such authority to refer to as this work represents."—F. W. Chandler, Boston, Mass.  
(Professor Chandler is the head of the architectural department of the Massachusetts Institute of Technology of Boston.)

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## Competition for a Hospital Building.

First Prize, \$500.

Second Prize, \$200.

Third Prize, \$100.

COMPETITION CLOSES JANUARY 16, 1909.

### PROGRAMME.

**T**HE problem is a Hospital Building. The location may be assumed in any American city of about 30,000 inhabitants. The lot contains about five acres and has a frontage of 300 feet on the main avenue, leading to the city, which runs east and west. The part of the lot on which the building is to be placed is practically level.

It is to be a block hospital with three floors above the basement. The height of the first and second stories is to be not less than 12 feet. No one floor above the basement is to contain more than 10,000 square feet, exclusive of sun rooms and approaches. The length of the structure, including sun rooms and approaches, cannot exceed 160 feet.

The following should be provided for in the plan:

Two ten bed wards for each sex in the Medical Department; two ten bed wards for each sex in the Surgical Department; and in connection with each of these wards two one bed rooms. Two ten bed wards for each sex in the Children's Department. A Maternity Department to accommodate six patients, two of which are to be in private rooms, and in conjunction with this department a delivery room and baby room.

In conjunction with the wards there should be provided service rooms or diet kitchens, nurses' utility rooms, linen rooms, broom and medicine closets, clothing rooms and toilet rooms.

In addition to the private rooms provided for in connection with the open wards there should be at least eight private rooms for single patients.

Operating and accident rooms, with their adjuncts of anæsthetic, sterilizing, bandage, instrument, nurses' work room, reception, and recovery rooms, also surgeons' dressing room and X-ray room.

Single bed rooms for at least twenty nurses; nurses' parlor; suite for superintendent and head nurse; bed room for two internes; reception room for patients; laboratory; drug room; cooking class room; kitchens; store rooms; laundry; bed rooms for fourteen domestics—four being males; dining room for staff and nurses; dining room for domestics; toilet rooms; small out-patients department; autopsy room; boiler room; fan room, and such other features as may suggest themselves to the designer.

The exterior of the building is to be designed entirely in Architectural Terra Cotta, employing colored terra cotta in at least portions of the walls.

The following points will be considered in judging the designs:

- A. Frank and logical expression of the prescribed material.
- B. Rational and logical treatment of the exterior.
- C. Excellence of plan.

In awarding the prizes the intelligence shown in the constructive use of terra cotta and the development or modification of style, by reason of the material, will be taken largely into consideration.

It must be borne in mind that one of the chief objects of this competition is to encourage the study of the use of Architectural Terra Cotta. There is no limitation of cost, but the designs must be suitable for the character of the building and for the material in which it is to be executed.

### DRAWINGS REQUIRED.

On one sheet, at the top, the front elevation drawn at a scale of 8 feet to the inch. In the title of this elevation state which point of the compass it faces. On the same sheet, below the front elevation, the four floor plans drawn at a scale of 16 feet to the inch.

On a second sheet, at the top, the elevation of secondary importance drawn at a scale of 16 feet to the inch; immediately below half inch scale details of the most interesting features of the design. The details should indicate in a general manner the jointing of the terra cotta and the sizes of the blocks. The color scheme is to be indicated either by a key or a series of notes printed on the same sheet with the secondary elevation and details, at a size which will permit of two thirds reduction.

The size of each sheet (there are to be but two) shall be exactly 36 inches by 24 inches. Strong border lines are to be drawn on both sheets one inch from edges, giving a space inside the border lines 22 inches by 34 inches. The sheets are not to be mounted.

All drawings are to be in black ink without wash or color, except that the walls on the plans and in the sections may be blacked-in or cross-hatched.

Graphic scales to be on all drawings.

Every set of drawings is to be signed by a *nom de plume* or device, and accompanying same is to be a sealed envelope with the *nom de plume* on the exterior and containing the true name and address of the contestant.

The drawings are to be delivered flat at the office of THE BRICKBUILDER, 85 Water Street, Boston, Mass., charges prepaid, on or before January 16, 1909.

Drawings submitted in this competition must be at owner's risk from the time they are sent until returned, although reasonable care will be exercised in their handling and keeping.

The prize drawings are to become the property of THE BRICKBUILDER, and the right is reserved to publish or exhibit any or all of the others. Those who wish their drawings returned may have them by enclosing in the sealed envelopes containing their names, ten cents in stamps.

The designs will be judged by three or five well-known members of the architectural profession.

**For the design placed first in this competition there will be given a prize of \$500.**

**For the design placed second a prize of \$200.**

**For the design placed third a prize of \$100.**

We are enabled to offer prizes of the above-mentioned amounts largely through the liberality of the terra cotta manufacturers who are represented in the advertising columns of THE BRICKBUILDER.

This competition is open to everyone.





ST. AGATHA SCHOOL, EIGHTY-SEVENTH STREET AND WEST END AVENUE, NEW YORK  
WILLIAM A. BORING, ARCHITECT.







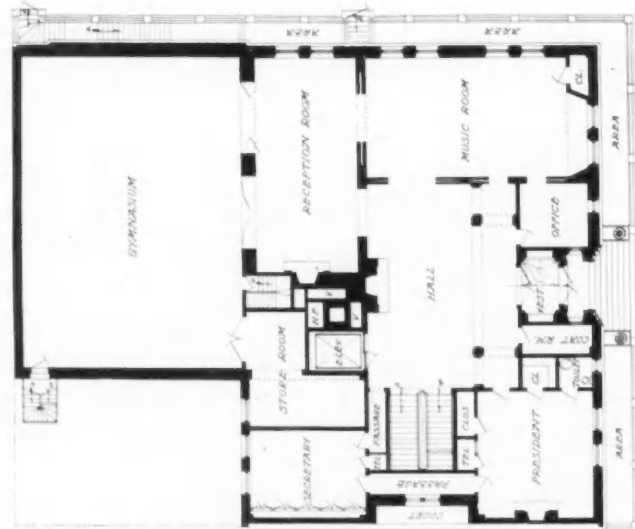
SIXTH-STORY PLAN.



SECOND-STORY PLAN.



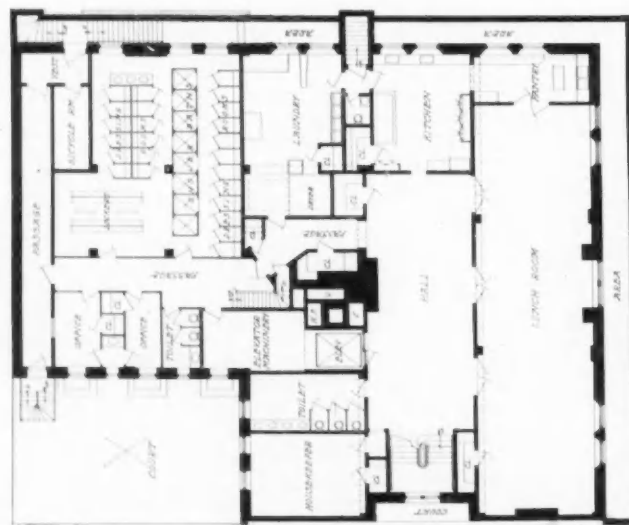
FIFTH-STORY PLAN.



FIRST-STORY PLAN.



THIRD-STORY PLAN.



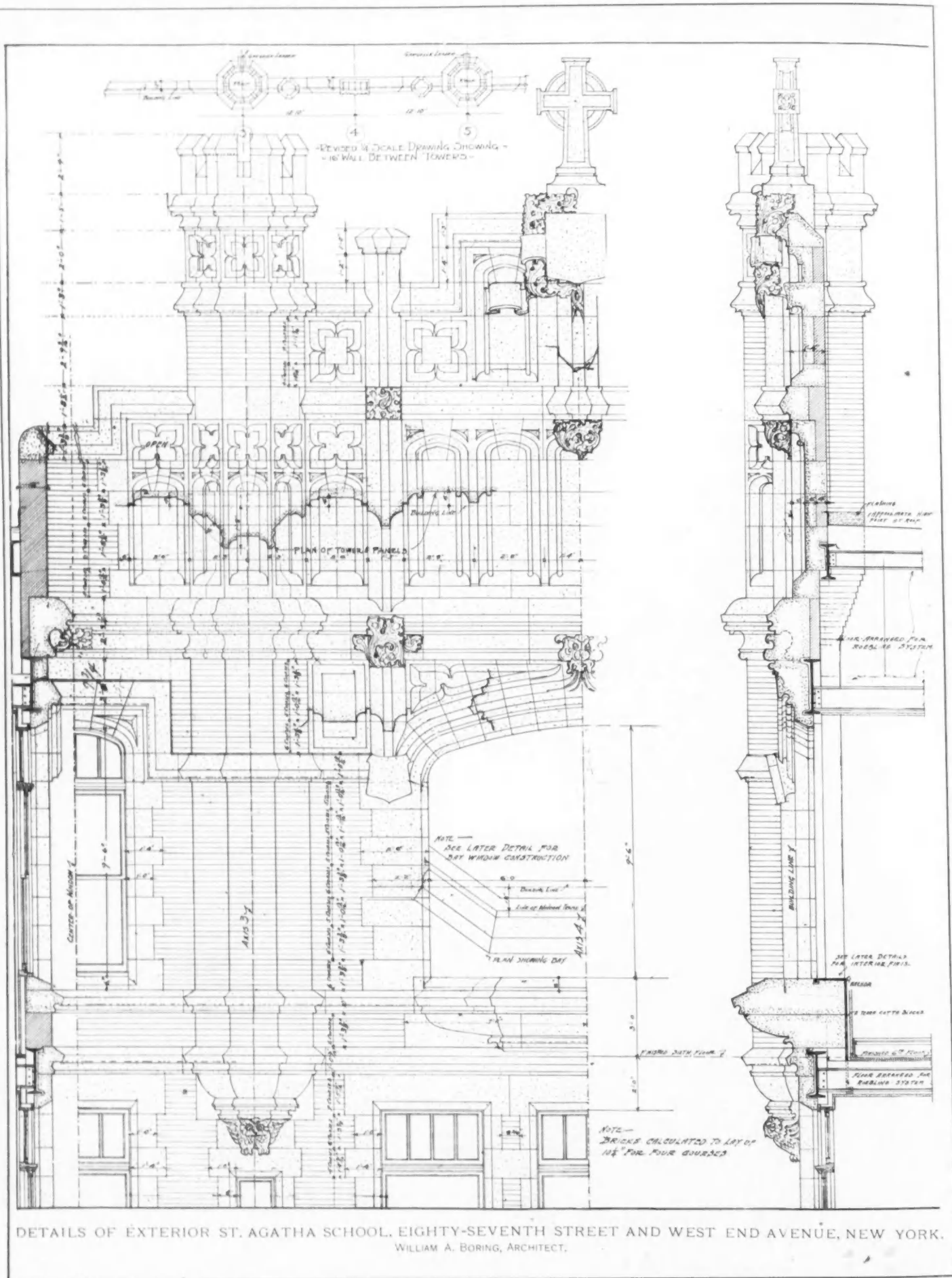
BASEMENT PLAN.

FLOOR PLANS, ST. AGATHA SCHOOL, EIGHTY-SEVENTH STREET AND WEST END AVENUE, NEW YORK.

WILLIAM A. BORING, ARCHITECT.

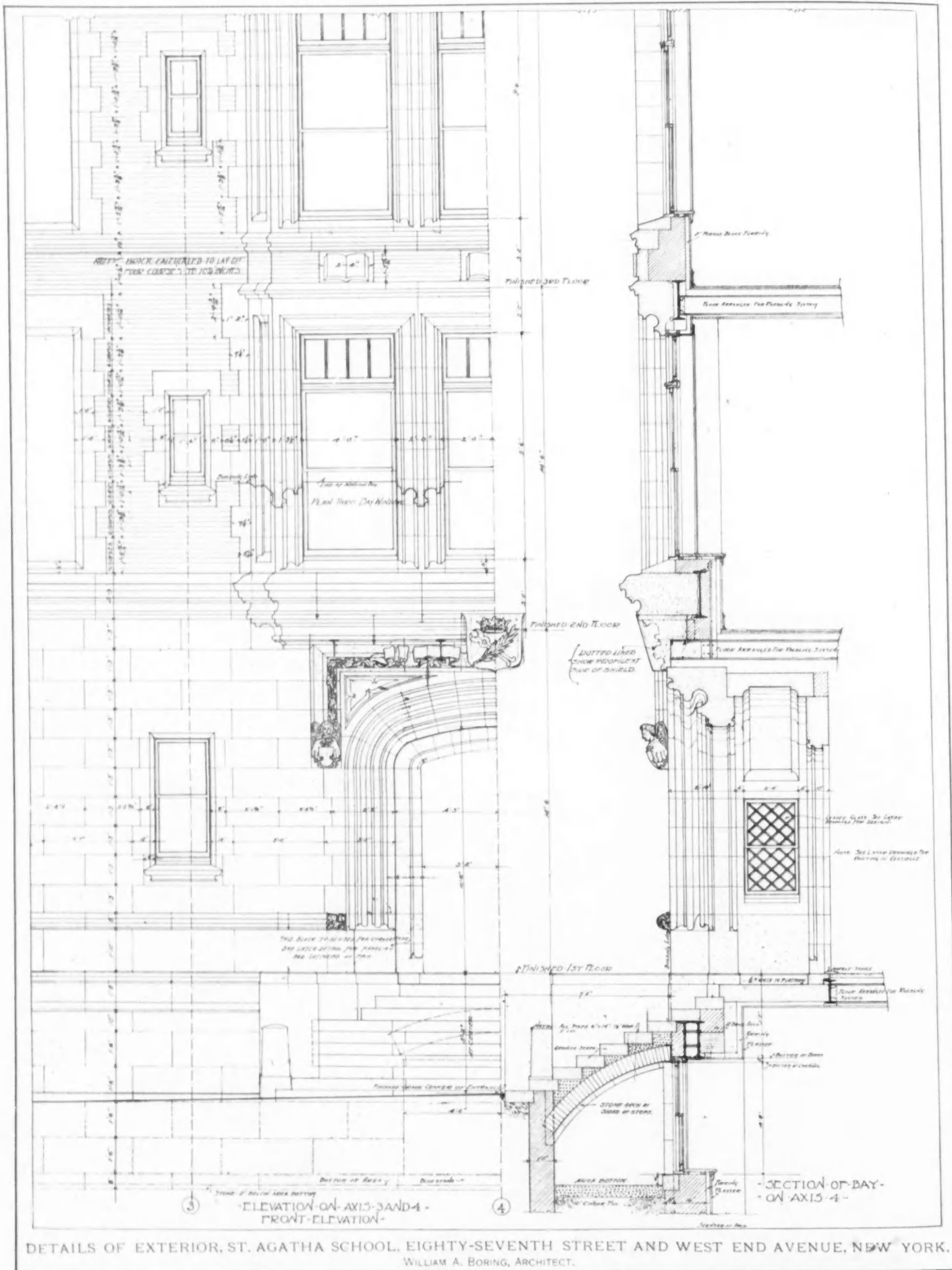






DETAILS OF EXTERIOR ST. AGATHA SCHOOL, EIGHTY-SEVENTH STREET AND WEST END AVENUE, NEW YORK.  
WILLIAM A. BORING, ARCHITECT.

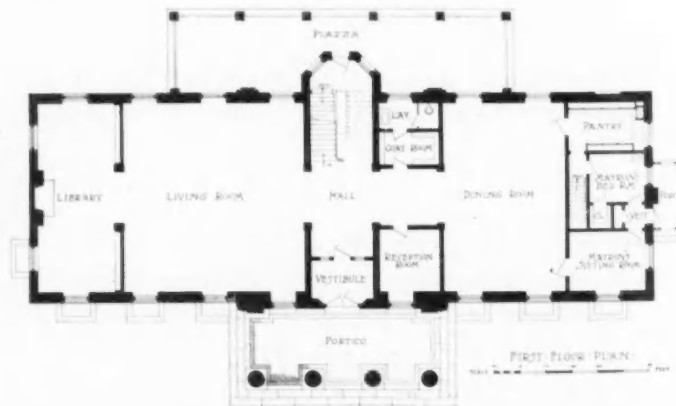
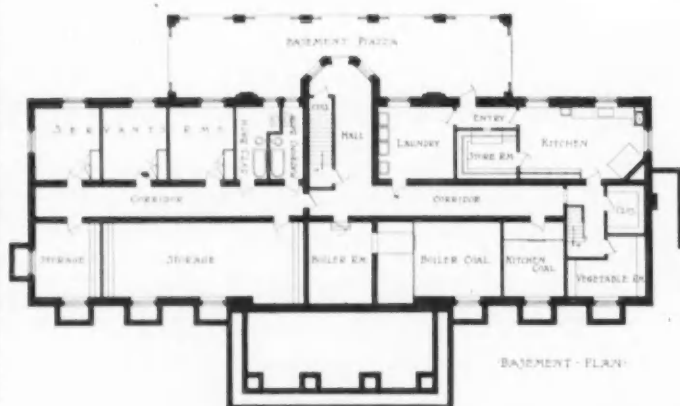
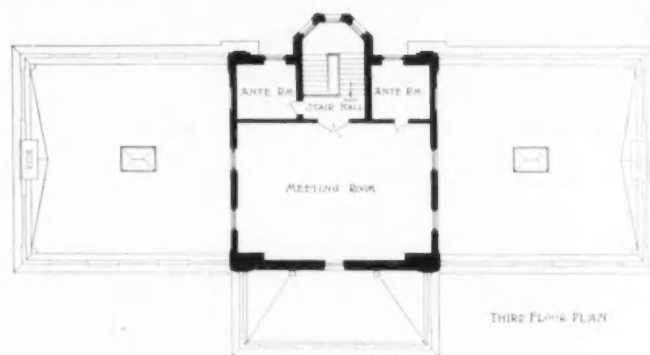
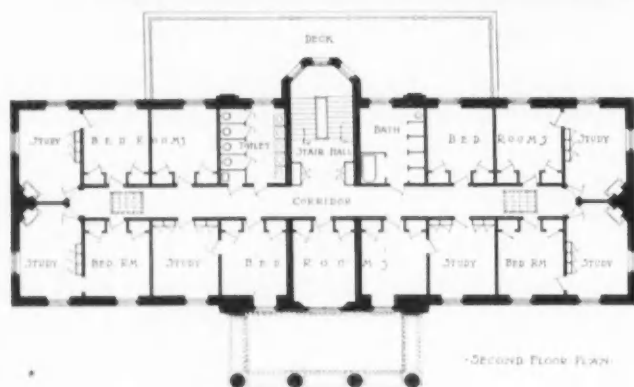




DETAILS OF EXTERIOR, ST. AGATHA SCHOOL, EIGHTY-SEVENTH STREET AND WEST END AVENUE, NEW YORK.  
WILLIAM A. BORING, ARCHITECT.



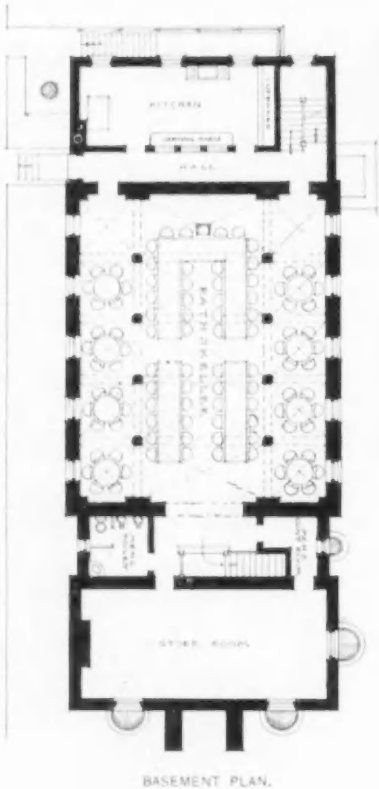




ECLECTIC SOCIETY BUILDING, MIDDLETOWN, CONN.

HENRY BACON, ARCHITECT.

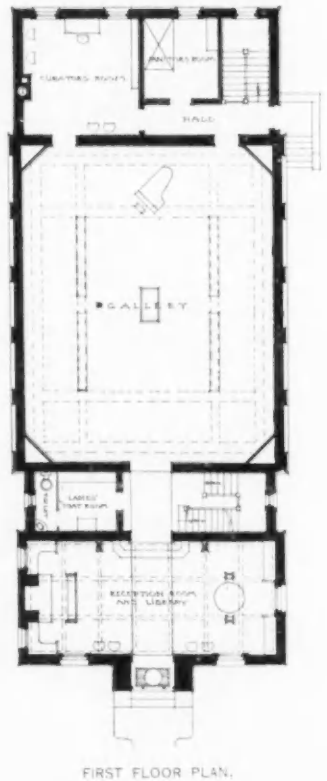




THE RATHSKELLER.

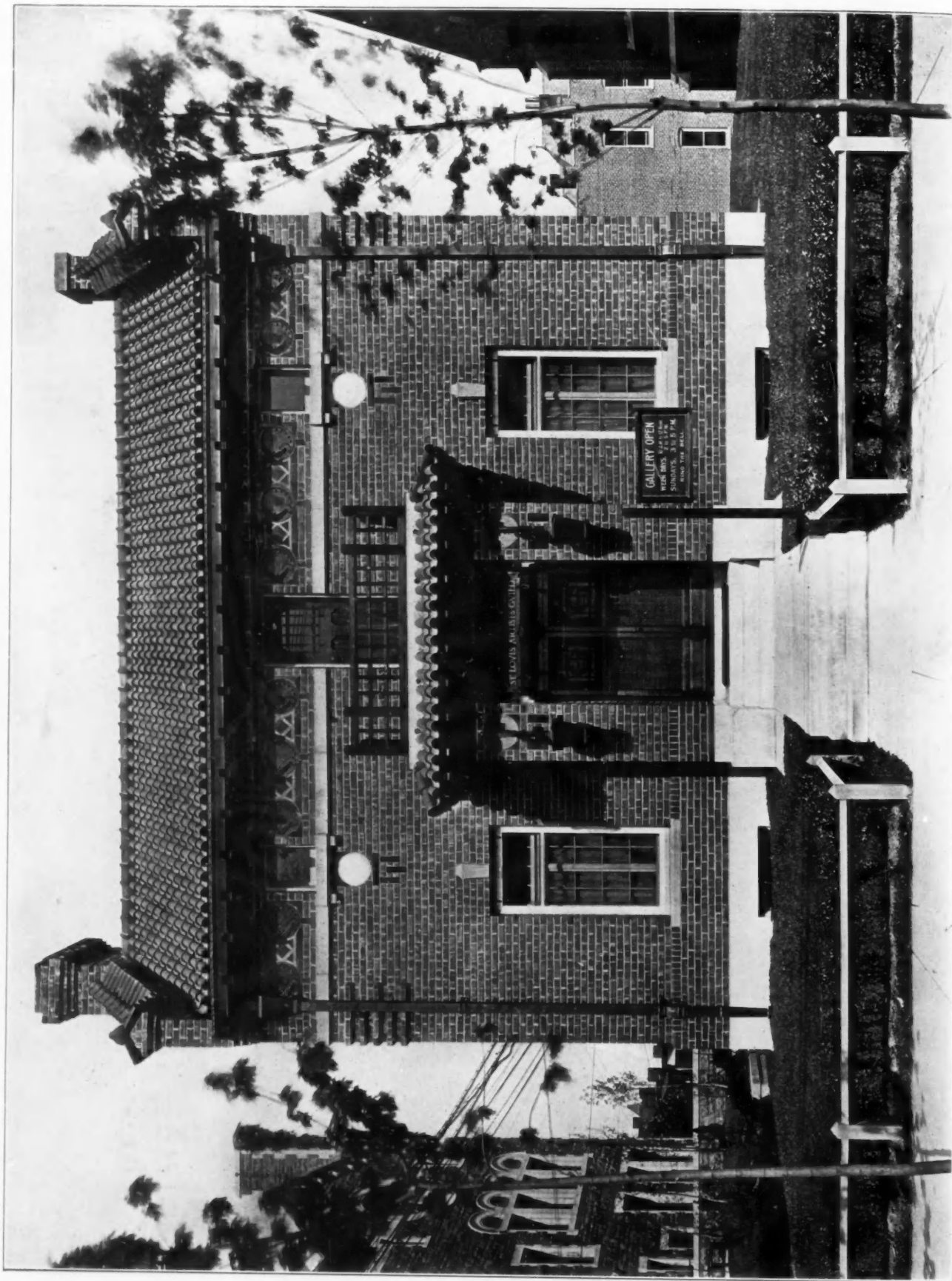
ST. LOUIS ARTISTS' GUILD,  
UNION AVENUE, ST. LOUIS.

LOUIS C. SPIERING,  
ARCHITECT.







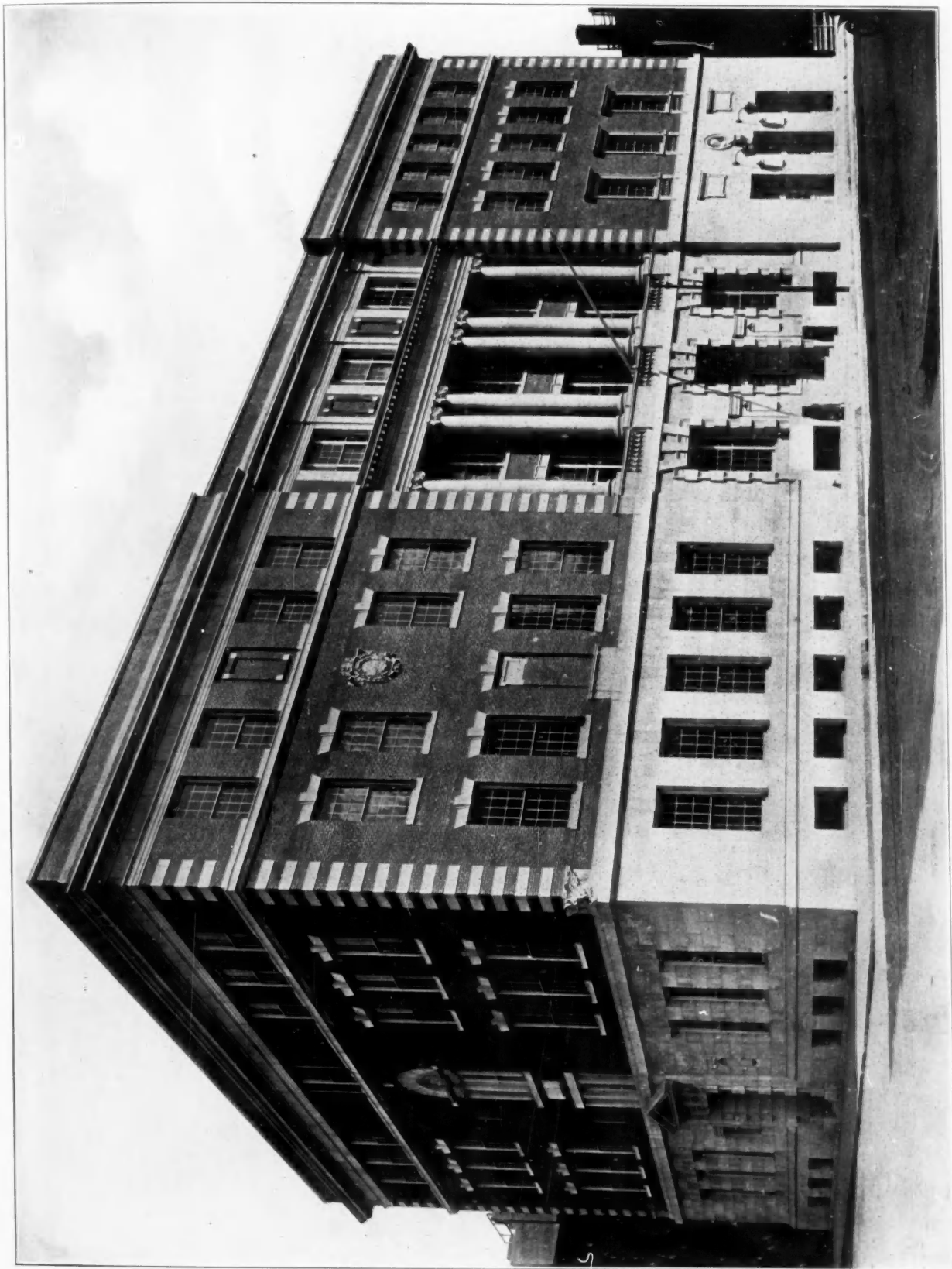


ST. LOUIS ARTISTS' GUILD, UNION AVENUE, ST. LOUIS.  
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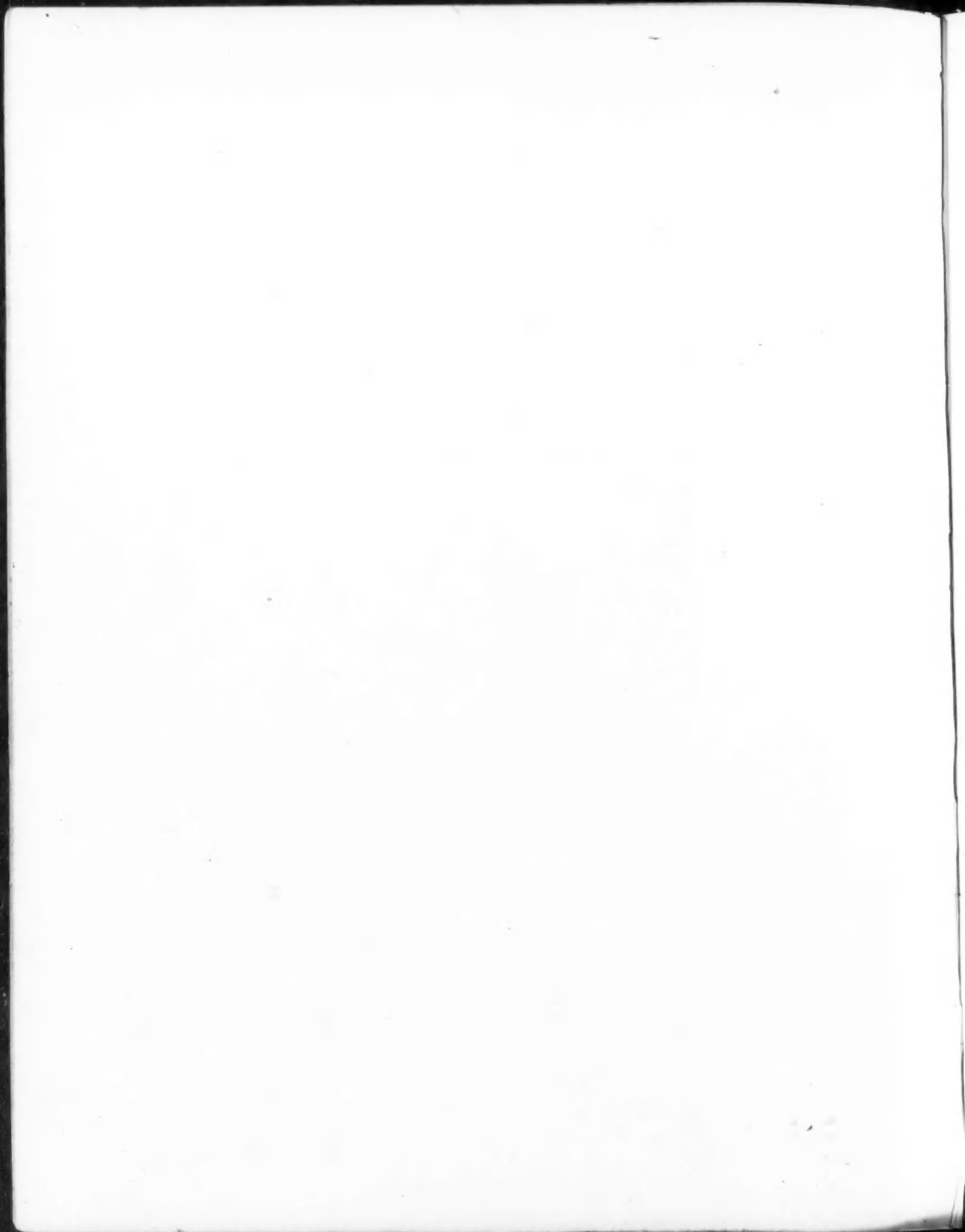
THE BRICKBUILDER.

VOL. 17. NO. 11.

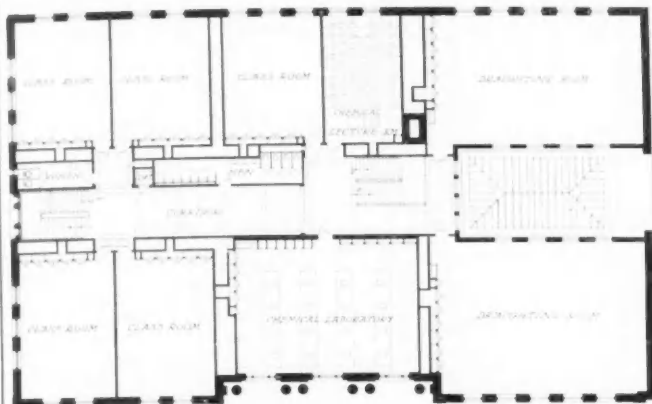
PLATE 136.



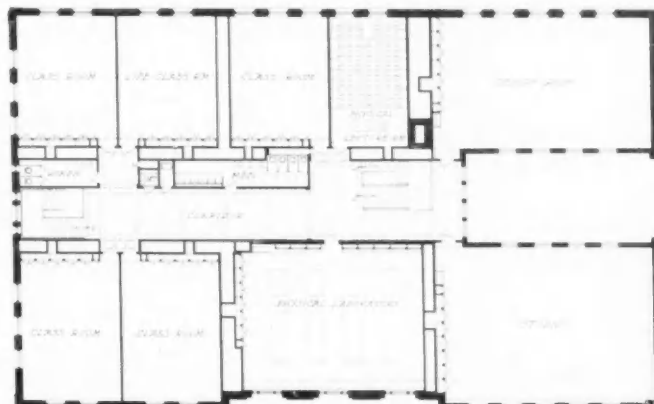
FRANKLIN UNION, BERKELEY STREET, BOSTON.  
R. CLIPSTON STURGIS, ARCHT.



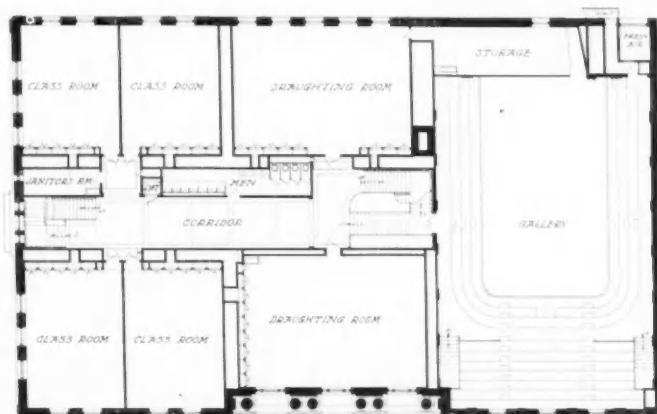




THIRD FLOOR PLAN

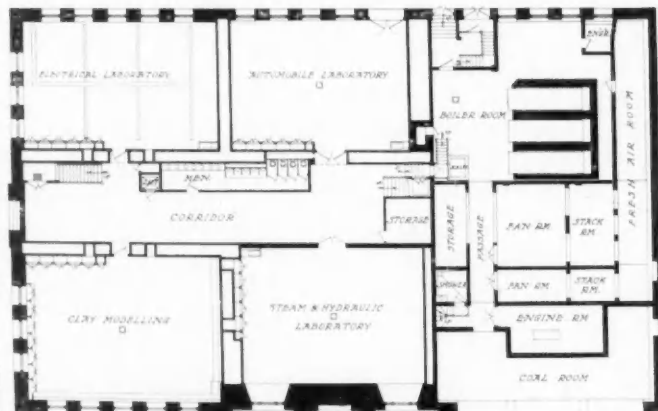


FOURTH FLOOR PLAN

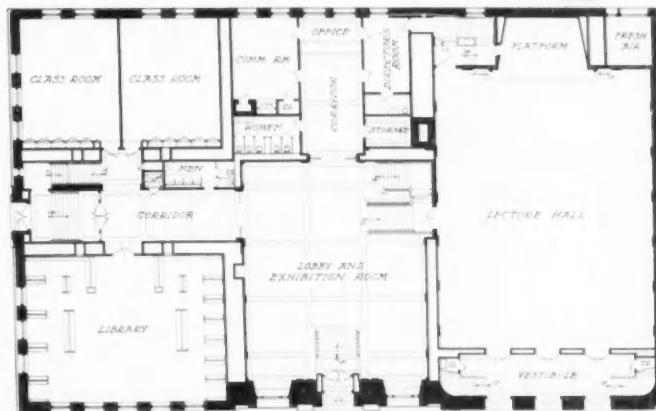


SECOND FLOOR PLAN

PLANS, FRANKLIN UNION, BERKELEY STREET, BOSTON.  
R. CLIPSTON STURGIS, ARCHITECT.

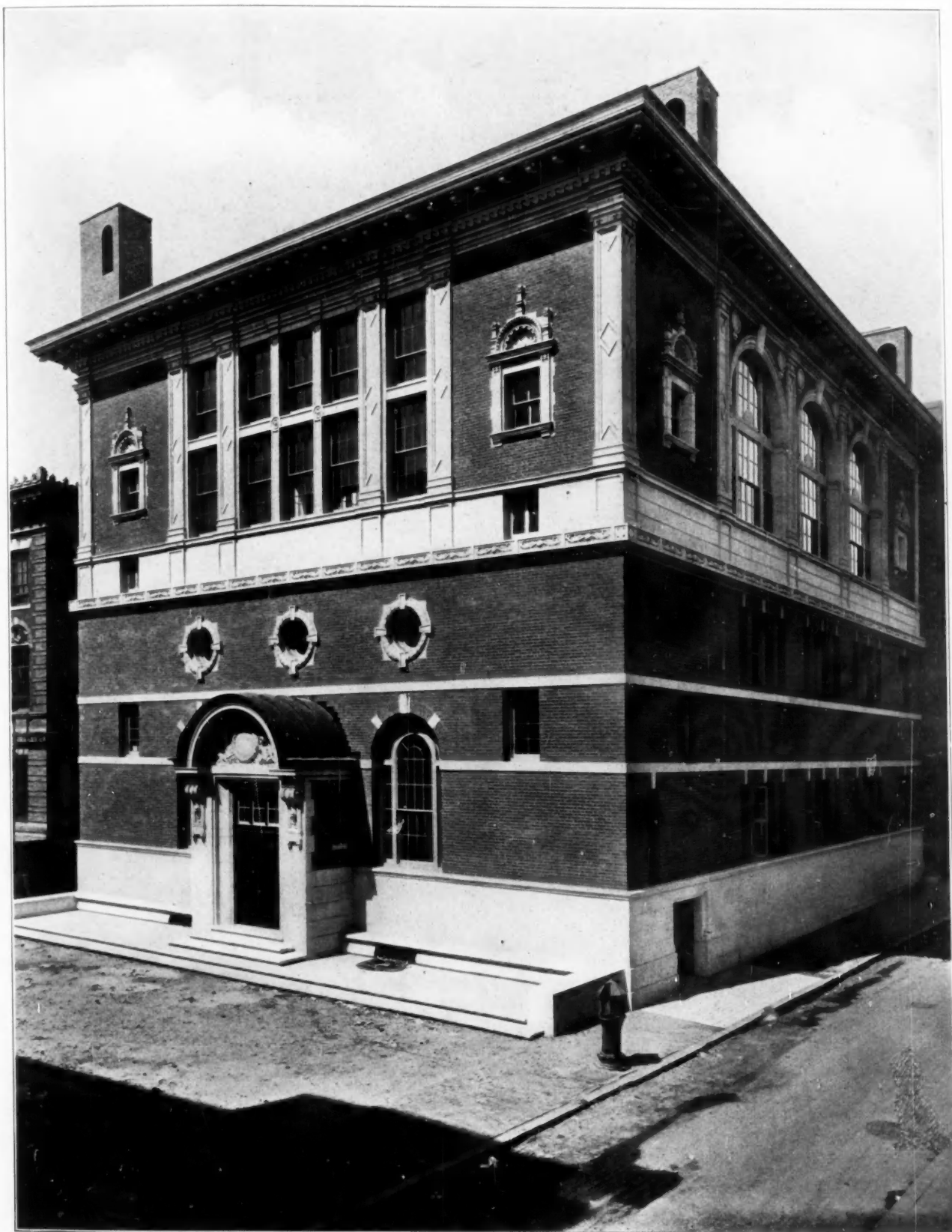


BASEMENT PLAN

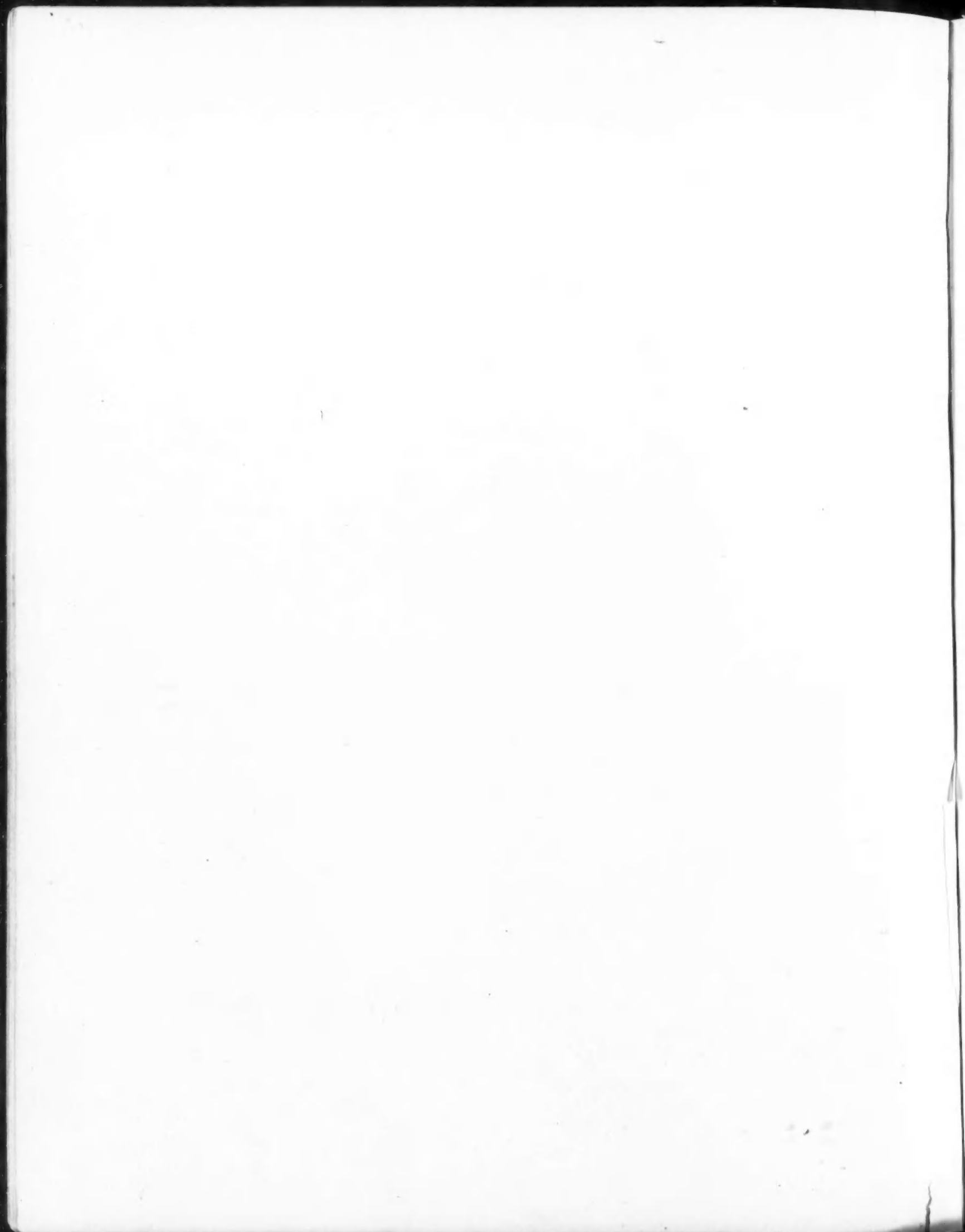


FIRST FLOOR PLAN



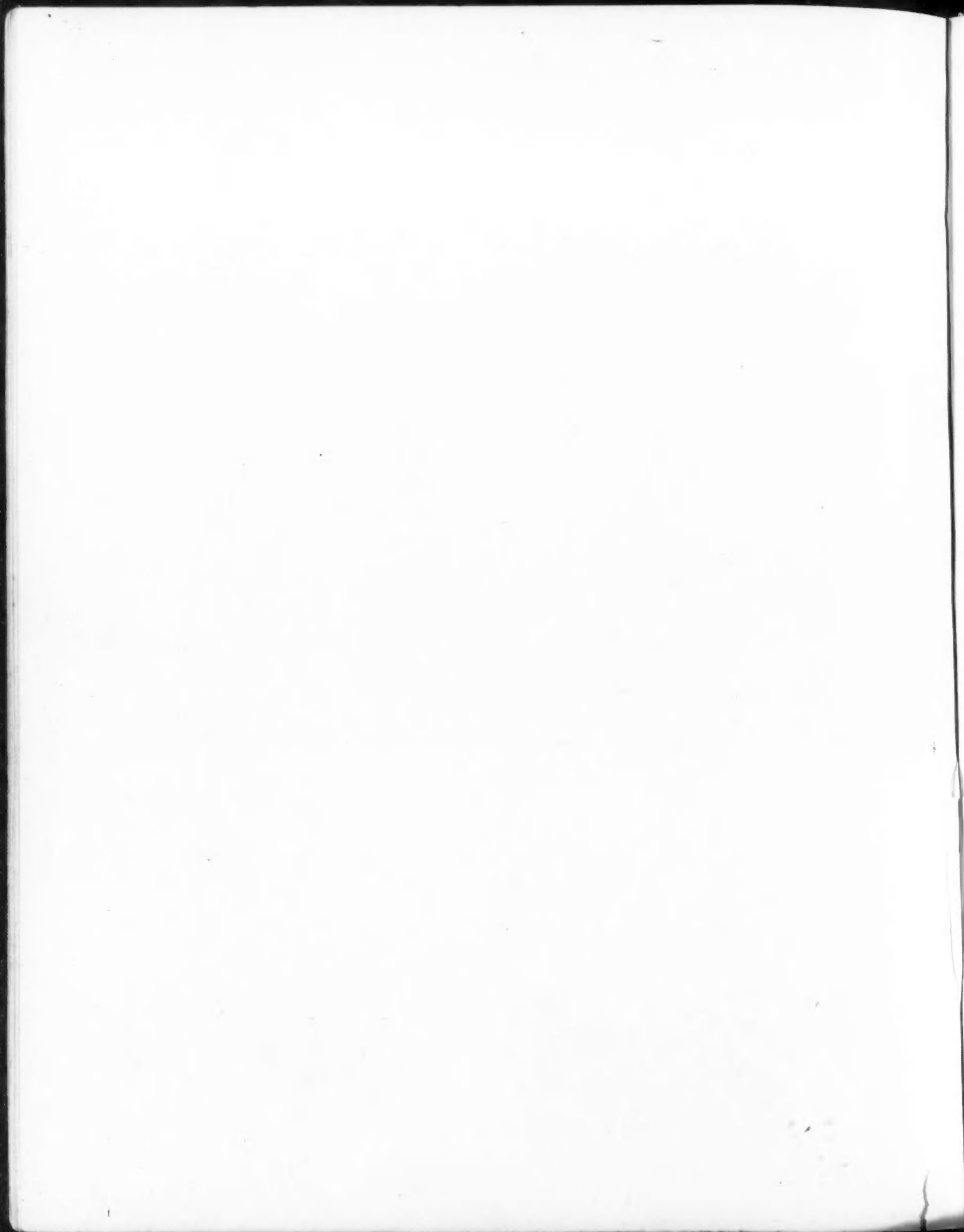


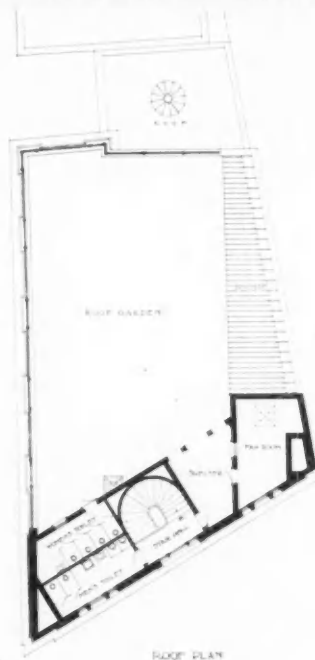
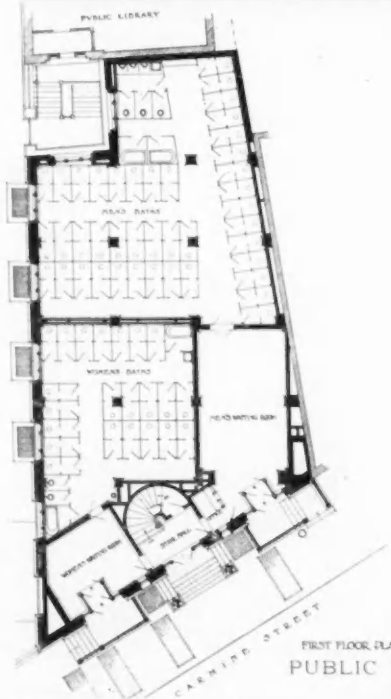
MUNICIPAL BATH HOUSE, NORTH BENNETT STREET, BOSTON.  
MAGINNIS, WALSH & SULLIVAN, ARCHITECTS.



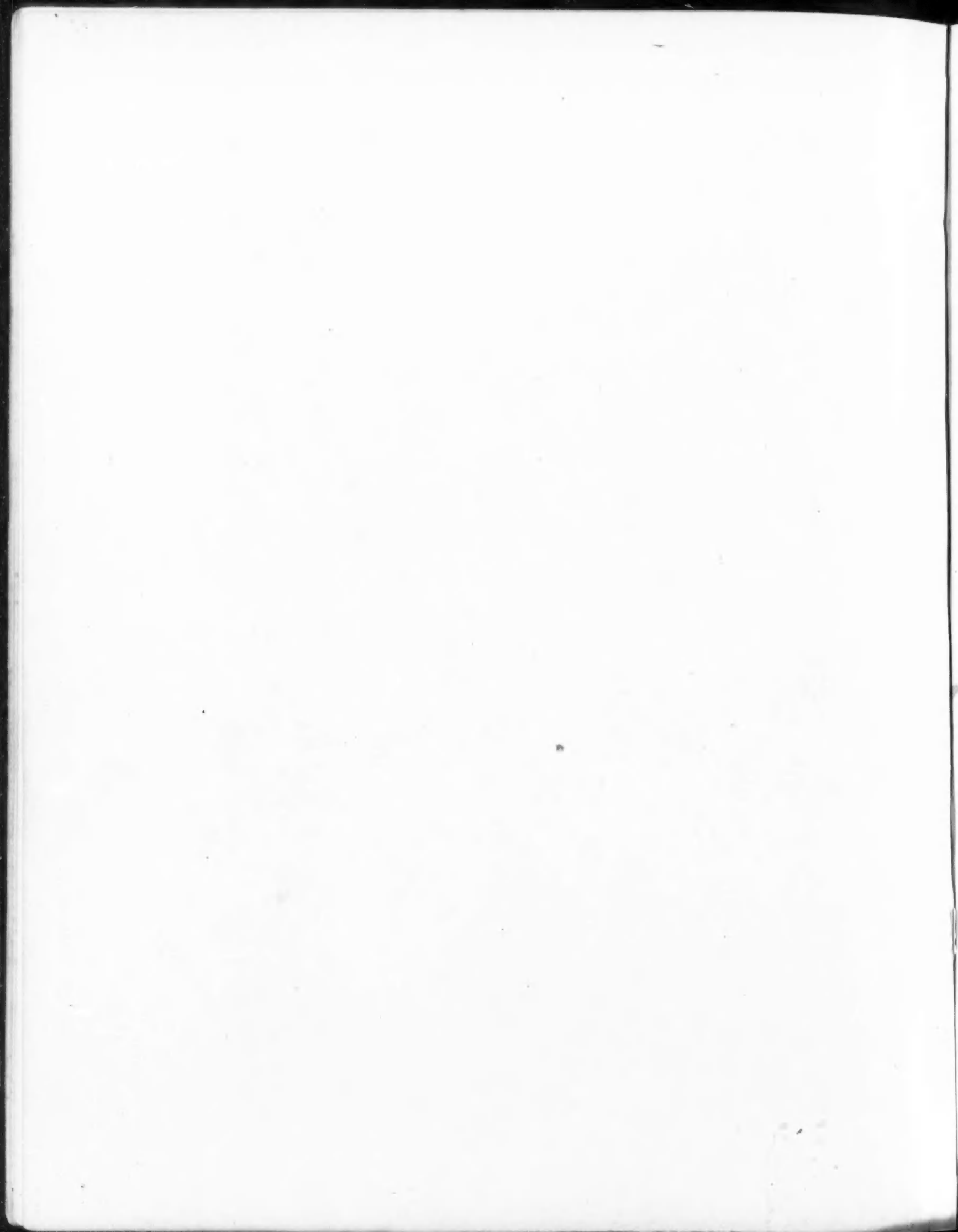








FIRST FLOOR PLAN SECOND FLOOR PLAN  
PUBLIC BATHS, CARMINE STREET, NEW YORK.  
RENWICK, ASPINWALL & TUCKER, ARCHITECTS.





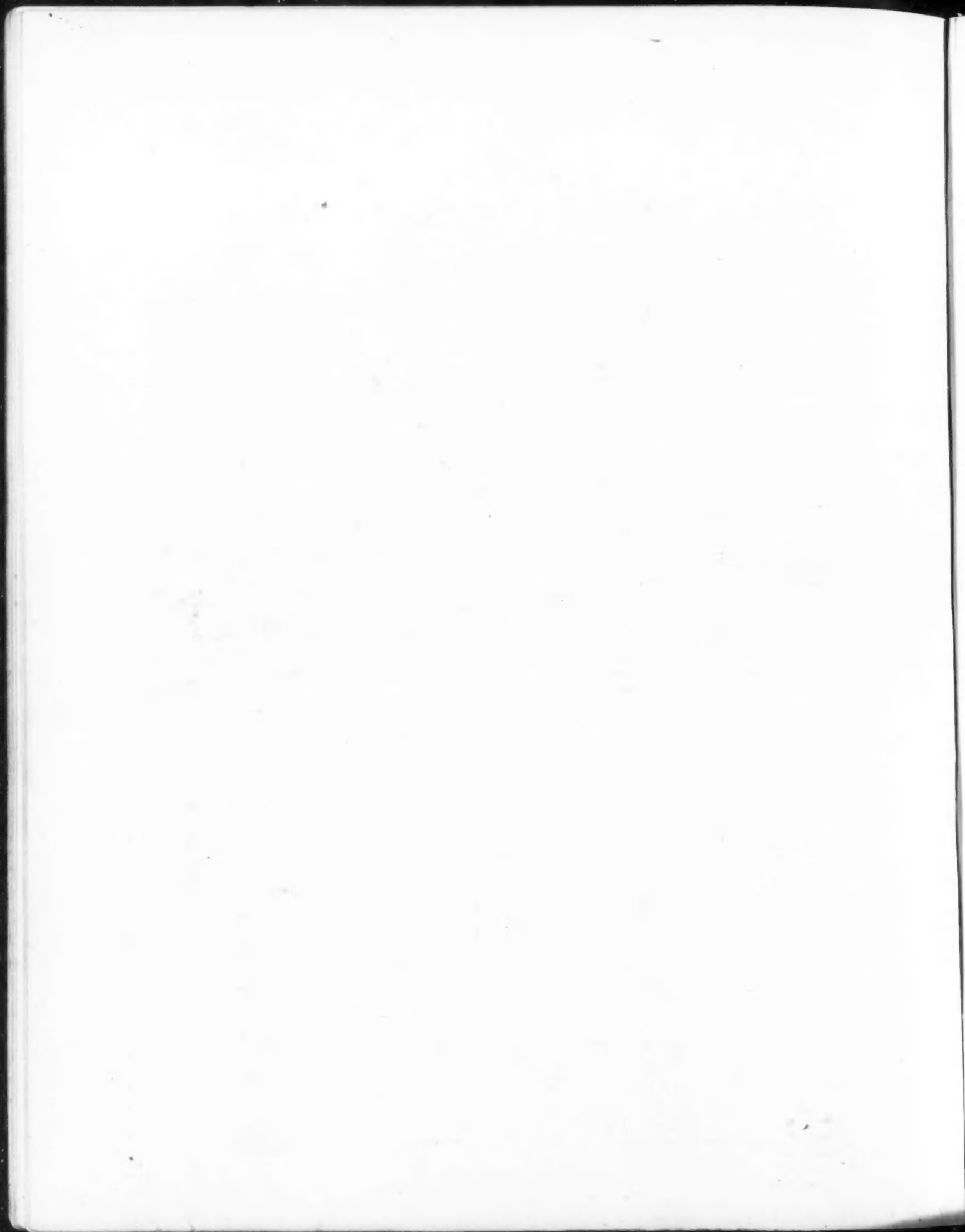


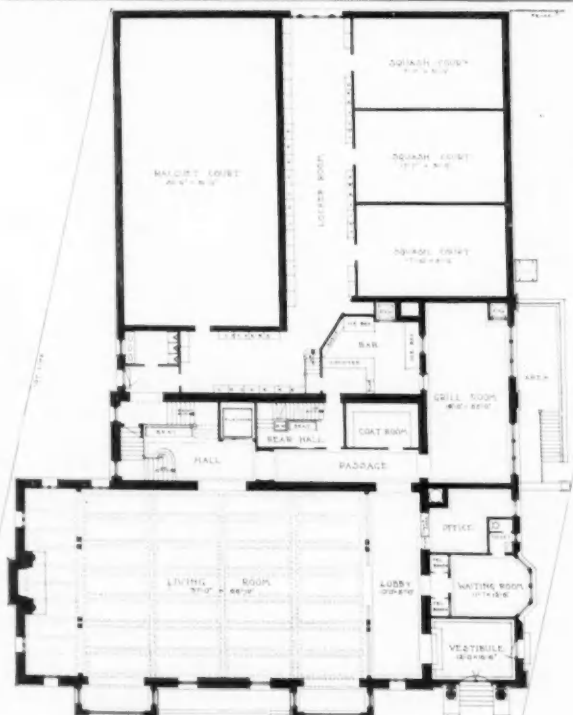
LIVING ROOMS.



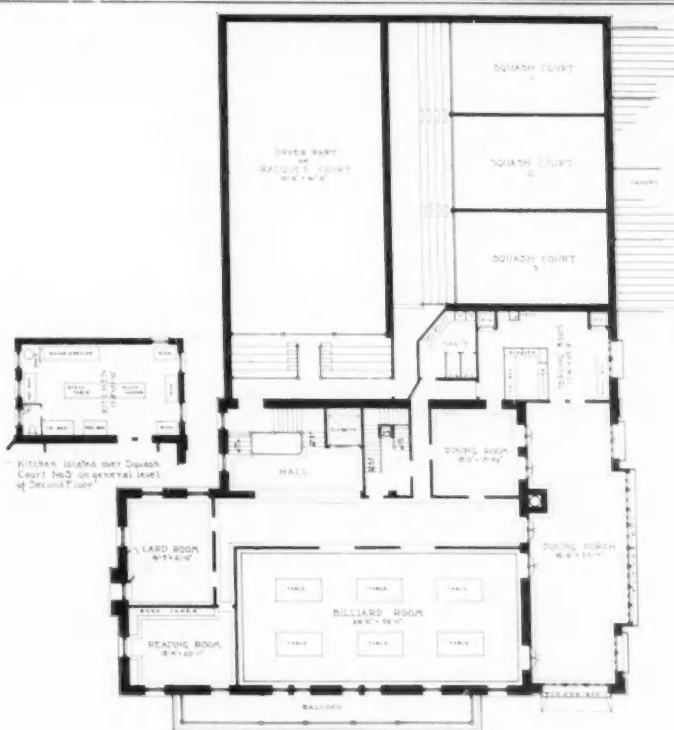
GRILLE ROOM.

RACQUET CLUB, ST. LOUIS.  
MAURAN, RUSSELL & GARDEN, ARCHITECTS.





FIRST FLOOR PLAN



SECOND FLOOR PLAN

RACQUET CLUB, ST. LOUIS.  
MAURAN, RUSSELL & GARDEN, ARCHITECTS.